

<110> Steven M. Ruben, et al.

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<141> 1998-11-10

<150> PCT/US98/10868

<151> May 28, 1998

<150> 60/044,039

<151> May 30, 1997

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<151> August 29, 1997

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<170> PatentIn Ver. 2.0

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gctccctggc	aaggggctgt	tgggtagaag	tgggtgggtgg	ggggacaaaa	gacaaaaaaa	1260
tccaccagag	ctttgtatct	ttgttacgta	ctgtttctct	gataattgat	gtgataagga	1320
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<210> 19

<211> 1337

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (20)

<223> n equals a,t,g, or c

<400> 19

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atccactggc	tcattggcgg	cttggccctc	accaagagca	tctctctcct	cttccacagc	360
atcaactact	acttcatcaa	cagccagggg	ccaccccatc	gaaggccttg	ccgkcatgta	420
ctacatcgca	cacctgctga	agggcgccct	cctcttcttc	accatcgccc	tgattggctc	480
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<210> 20

<211> 1390

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (1267)

<223> n equals a,t,g, or c

<400> 20

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gatgagtc	ctagtgaact	gagtgttgat	agtgggtgg	aatttcaact	ctatagccaa	180
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gatagtgg	tcattccagct	gtcagatggg	tcagaggcca	tcactttgtc	tgatgaagac	360
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tgctactatg	rtgaaaaata	tgaatttcag	gagagagaaa	agagactaaa	acaaaaaata	1260
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gcaaatgaga	acccccacca	tgatataagg	aagggccgtg	cctcatggaa	aagcaacagg	1380
tggcctcaag						1390

<210> 21

<211> 1431

<212> DNA

<213> Homo sapiens

<400> 21

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ctcagtctcc	ctggcgagcg	acgggcagaa	atctogaacc	agtggagcgc	actcgtaacc	120
tggatcccag	aaggtcgcga	aggcagtacc	gtttcctcag	cggcggaactg	ctgcagtaag	180

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<210> 22
<211> 2539
<212> DNA
<213> Homo sapiens
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<400>	22
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agcgcgcctc cctatctctg tgctcctctt ggcaactcagg ggcaccctcc atggagccag	180
accgggtgga ggggcttctg ggatttgttg tctgctgctg ccagagcagg aacccccagt	240
ctaggacttg ggcattttaaa caggggagaaa gttagtggtt cccttttctc tctctcctcc	300
tttttccctt taagcccaca gatlcaggtc atgccaaaaag ctctctgggt gtaacctgga	360
gacatgtgga ggggaatggc gatgggatta taggactctc ccatctctcg gccctgacct	420
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caccacgcca cccctgtgst kgctacagga gcacagtagt gaaggcctga gctccaggtt	780
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<210> 23
<211> 1041
<212> DNA
<213> Homo sapiens
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<210> 24
<211> 1962
<212> DNA
<213> Homo sapiens
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<220>
<221> SITE
<222> (452)
<223> n equals a,t,g, or c
<220>
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<221> SITE
 <222> (480)
 <223> n equals a,t,g, or c

<400> 24

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cactcaggat	ataacacact	ataatagaaa	atgtagactt	cagaatcagg	tatatttgag	180
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ccctttgtkc	acctatwtgt	ggggatcagt	gcatagtgtg	tgtwaagcat	ttaatacctg	300
gcaagtgttc	agcaaatatt	ttgtttctata	tattttattat	ttgattattg	gccctgagga	360
gtaggtgttt	gtttgtttgt	ttgtttgttt	agttttattt	ctcatctcct	caggaacaca	420
aatgaaactt	ggatattggt	atgggtgctt	tnataatata	tttattattt	tcagcaattt	480
attcttggtt	aaacaatttc	ttatgacaag	ttactcatct	tcaatgggtga	gaagaaatct	540
agctcagaat	aatatatttt	tagtgtttgt	atccttggtg	actcattttg	ctcattgcca	600
cgtaaagtta	aaaaatacat	aaattagctt	attccaatgt	aatatcttca	ggatagtcac	660
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gacaattaga	tggacattta	aaatggaaact	tcttttatct	gacaggatca	gctacaatgc	1860
cctgtgttaa	attgttttaa	agttttccct	ttcttttttg	ccaataaagt	tgtaataaaa	1920
gaccatcata	cattaaaaatc	caaaaaaaaaa	aaaaaaaaaa	aa		1962

<210> 25
 <211> 1228
 <212> DNA
 <213> Homo sapiens

<220>

<221> SITE
 <222> (580)
 <223> n equals a,t,g, or c

<220>

<221> SITE
 <222> (621)
 <223> n equals a,t,g, or c

<220>

<221> SITE
 <222> (1159)

<400> 25

<210> 26

<212> DNA

$\langle 220 \rangle$

<222> (847)

<223> n equals a, t, g, or c

<220>

<221> SITE

 $\langle 222 \rangle \quad (1303)$

<223> n equals a,t,g, or c

 $\langle 220 \rangle$

<221> SITE

<222> (1307)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (1314)

<223> n equals a, t, g, or c

<400> 26

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agaaaaagtc	ctacctggag	cgacgtttaa	ggaagcttag	gacaacatcc	gggagatgct	360

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caataaatat	tcaaatgca	tccctaawwa	aaaaaaaaaa	aangggnggc	cgcncctaggg	1320
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<210> 27

<211> 806

<212> DNA

<213> Homo sapiens

<400> 27

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<210> 28

<211> 696

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (9)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (21)

<223> n equals a,t,g, or c

<400> 28

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gggatcccca	tgcaccttgt	ccttctccac	tgatactggc	agctcggctc	ctggacccaa	180
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aacctgccct	accaccacca	cgcgtcagc	ctgatgtgtt	tacatggtac	tgtatgtag	420
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<210> 29

<211> 1007

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (922)

<223> n equals a,t,g, or c

<400> 29

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gaaagatgtg	tctccagacc	cttcaagcag	ctgacacaca	agagtccagg	accaaactgc	480
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<210> 30

<211> 2026

<212> DNA

<213> Homo sapiens

<400> 30

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aatttttcaa	caaaagtctt	ttaataacaa	aagcatgcag	ttctctgtga	aatctcaaat	1920
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<210> 31
 <211> 699
 <212> DNA
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (2)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (28)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (44)
 <223> n equals a,t,g, or c

<400> 31						
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tttacaagta	ttatcctttt	aagatcattt	taattttagt	tgagtgcaga	gggcttttat	180
aacaaacgtg	cagaaatttt	ggagggctgt	gattttttcca	gtattaaaca	tgcatgcatt	240
aatcttgcag	tttattttct	catttgtgtat	gtatatatcg	cttttctctg	cagcacgatt	300
tctcttttga	taawkccctt	tagggcacia	ctagtatatca	gtaactgaat	gtatcttaat	360
cattatggct	gcttctgttt	tttcatatac	aaagggttatt	catatgttag	catatagtct	420
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660
699

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<210> 32
<211> 1264
<212> DNA
<213> Homo sapiens
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<220>  
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<222> (1057)  
<223> n equals a,t,g, or c
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[illegible]

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<210> 33
<211> 997
<212> DNA
<213> Homo sapiens
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<220>  
<221> SITE  
<222> (855)  
<223> n equals a,t,g, or c
```

```
<220>  
<221> SITE  
<222> (881)  
<223> n equals a,t,g, or c
```

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<220>  
<221> SITE  
<222> (916)  
<223> n equals a,t,g, or c
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<400> 33

<210> 34

<212> DNA

<220>

<221> SITE

<222> (1889)

<223> n equals a,t,g, or c

<400> 34

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tcctaacca	acccaacct	gccagtcctc	agccgccagc	gcctgtccct	gtcacggacc	180
ccagcgttac	catgcatcct	gcctgtcttc	tatccttacc	cgacctcaga	tgctcccttc	240
tgctcctgg	aacttgggtt	tttactcctg	taacaactga	aataacaagt	cttgatacag	300
agaatataga	tgaaatttta	aacaatgctg	atgttgcttt	agtaaatttt	tatgctgact	360
ggtgtcgttt	cagtcagatg	ttgcatccaa	tttttcaggga	agcttccgat	gtcatttaagg	420
aagaattttc	aaatgaaaa	caagttagtg	ttgccagagt	tgattgtgat	cagcactctg	480
acatagtcca	gagatacagg	ataagcaaat	acccaacctt	caaaactgttt	cgtaattgga	540
tgatgatgaa	gagagaatac	aggggtcagc	gatcagtgaa	agcatttgga	gattacatca	600
ggcaacaaaa	aagtgacccc	attcaagaaa	ttcgggactt	agcagaaatc	accactcttg	660
atcgcgacaa	aagaaatatc	attggatatt	ttgagcaaaa	ggactcggac	aactatagag	720
ttttttgaacg	agtagcgaat	atttttgcatt	atgactgtgc	ctttctttct	gcatttgggg	780
atgtttcaaa	accggaagaa	tatagtggcg	acaacataat	ctacaaacca	ccagggcatt	840
ctgctccgga	tatggtgtac	tcggggagcta	tgacaaatbt	tgatgtgact	tacaattgga	900
ttcaagataa	atgtgttcct	cttgtccgag	aaataacatt	tgaaaatgga	gaggaattga	960
cagaagaagg	actgcctttt	ctcatactct	ttcacatgaa	agaagataca	gaaagttag	1020
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caacagcagc	atcaacctac	gtggtggaaa	tagtaaacct	atattttcat	aattctatgt	1500
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ggacttaggg	atgtttcctg	tgtcgtatgt	gcttttcttt	ctttcatatg	atcaattctg	1800
ttggtatttt	cagtatctca	tttctcaaag	ctaaagagat	atacattctg	gatacttggg	1860
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<210> 35

<211> 1020

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (18)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (26)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (1014)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (1015)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (1018)

<223> n equals a,t,g, or c

<400> 35

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taaattgacc	atgcatataa	tattcttttgt	ttaaatgaaa	gcataactgtt	gaaacccgca	180
gtgttgcat	tagaaaacag	ttgaacagaa	tgtcaatgtg	cattcatgca	aaaaaacatt	240
taatctgcat	ctgtttttaga	aaaggggggaa	atgaagcaac	ttgtctaaaa	atactgcttt	300
acaaagcatt	tcagcctttc	cccctcagtt	ttgcattgat	tttttgacaa	gtctgtagag	360
cctaatagtt	tccatcaaaag	gcctagatct	cttatttagc	attttttttca	gctcttctct	420
cagaagttca	gctgttgaaa	cgaaaactgt	actttgtacc	ctcacatata	aagggatcaa	480
atttgacctg	gtgttatttt	agccccaaat	ttatgacatt	acacaatatt	aaaatgtaaa	540
tgtttcttta	cccaaactac	ttctagatat	tctagtattt	gcttctgggtg	gaattaaatg	600
acggtaaaat	tggctaatta	tttgaatgaa	tgaatggatg	gatgcttttg	atgotcaatt	660
tctaggtcct	ttgtctagaa	aggaaatttg	cctcagttga	attagtgaag	tatttctgtc	720
gttgatatta	aaagtgactt	ctgagtagag	tttaagttcct	ccattttgcc	actgggctgt	780
tgggttagaag	cataggtaac	tgattaaagta	ggtatgatac	tgcatttgaa	ataagtggac	840

1005553.000000

acaaactatc	ctttctccac	catggactca	atctgagaac	aacagcattc	atttccattc	900
atttccatc	tggtcttga	ttatatgcag	attcctagta	gcatgcctta	cctacagcac	960
tatgtgcatt	tgctgtcaca	ataaagtata	ttttgtcttg	caaaaaaaaa	aaannaangg	1020

<210> 36
 <211> 781
 <212> DNA
 <213> Homo sapiens

<400> 36						
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ragccactgc	gcctggctga	ttccagcact	tttmaaatga	tgccgctcaa	agccgtgact	120
tggtctactt	tgaacagcaa	acttgttgc	gctgttgtca	acctgaaggc	ctctcaaatg	180
ccagcttcaa	gcagggtgtg	aattggccag	tgctcagatct	caggagtcc	gtgttgagag	240
tggtggtctt	agctgcgggg	agctgcactt	ggtggggaaa	gccaggcagg	tcacctcac	300
agccagataa	tgtggaggtc	agaacccaag	gaaggaggatg	agacctccac	ttccagtggg	360
ggacctggcc	acctatcctt	ggggacctga	gaaagcgtac	ttcaccttgg	ggtgaaggct	420
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atattatgaga	cttcttagtc	aaatatgagg	gaggttggat	gtggtggctt	gtgcctgtaa	720
ttccagcatt	ttgggaagcc	gaggtgggag	gatcccttga	agccaggagt	ttgagacaag	780
c						781

<210> 37
 <211> 966
 <212> DNA
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (8)
 <223> n equals a,t,g, or c

<220>
 <221> SITE
 <222> (586)
 <223> n equals a,t,g, or c

<400> 37						
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ttgaatttga	tatgatgtat	atatattcac	ctctagccca	taggtacata	tagtctatat	180
attaaaaaga	cattggattt	tgacttaaac	tagatgtttc	tcaagcacac	caagacggtg	240
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ctgccccgag	tgctgaggag	cgaggtgact	gcctacatgg	tgatgsaaaag	atttgggcac	420
gcttccggct	ttcaggccaa	acaacctcgc	ttgtctccatg	gcaccttga	ttccagcagt	480
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caccacgtgg	gtctcctgtc	agcctcgaag	tgctcctgcg	ccctcncctg	tacgcccagg	600
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ggttctgtcac	gtcagcagca	tctgtgggtg	ggccctggga	cccttcagaa	caggggctcc	720
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taggcagccc tgcaatcgga gggctgcgtg ctccccctga tcagccccca gctgcttcc 960
cgtgcc 966

<210> 38
<211> 416
<212> DNA
<213> Homo sapiens

<220>
<221> SITE
<222> (395)
<223> n equals a,t,g, or c

<400> 38
gaattcggca cgaggtaata ggagccctcg tacctcttgt gttccttaca aacattctca 60
tcagtagctc tacgcgttga ctgggtggtt tgaratggct ggtatacaca gggctttctt 120
ggtgttctgt ctctggggct tarctttgtg tgtggttggg gggccctggt gagattggaa 180
gtaccagaga gtgctgtgtc aggggcagag gggcctgtcg ctggagctgg agggtgctcg 240
cctttgtgtc tgactcartc tcctgtctgc cttgccccct cagggctctg ccagcccagc 300
ctctgtggga atctaaaagg artggatgtg gacgktgtac caagcacatc tcagctttta 360
atacctgggc tatttataga cctttggggg gaatngcttg tggaacaaca agggtt 416

<210> 39
<211> 1114
<212> DNA
<213> Homo sapiens

<400> 39
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ggaggaggag gacggggggc ccgaagccaa aatcgcgagc ggggcggggc gggcgcgacc 120
ttcgaatgta atatatgttt ggagactgct cgggaagctg tggtcagtgt gttggtccac 180
ctgtactgtt ggccatgtct tcatcagtgg ctggagacac ggccagaacg gcaagagtgt 240
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cagaagcccc aggatcccag attaaaaact ccaccccgcc ccaggggcca gagaccagct 360
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gcttcctgcc cacctccagc cagagaagaa tcagtattga gggtccttgc tgacccttcc 660
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gaatgtcttt ctctctctct aagtctttgc tttccctgat ttcttgattt gatcttcaaa 900
ggtggggcaaa gttccctctg actcttcccc cactccccat cttactgatt taattttaatt 960
tttcaactccc cagagtctaa tatggattct gactcttaag tgcttccgcc cctcactac 1020
ctcctttaat acaaattcaa taaaaaagg gaaatataaa aaaaaaaaaa aaaaaacycg 1080
ggggggggccc cggtcccat tcccttttgg ggg 1114

<210> 40
<211> 602
<212> DNA
<213> Homo sapiens

<220>
<221> SITE

<222> (597)

<223> n equals a,t,g, or c

<400> 40

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taattgtctc	tgtggcacat	ttcgtttccc	gtgccttggg	tgtcaagttg	cagctgatac	120
gaatgaatgc	tgtctgtgtg	gaacaagcgt	cgcaatgagg	actctctaca	ggacccgata	180
tggcatccct	ggatctatct	gtgatgacta	tatggcaact	ccttgctgtc	ctcattgtac	240
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gatgggtgaaa	agctcttacc	gaagcaacaa	aattcagcag	acacctcttc	agcttgagtt	360
cttcaccatc	ttttgcaact	gaaatatgat	ggatatgctt	aagtacaact	gatggcatga	420
aaaaaatcaa	atTTTTtgatt	tattataaat	gaatgttgtc	cctgaactta	gctaaatggg	480
gcaacttagt	ttctccttgc	tttcatatta	tccaatttcc	tggctcataa	actttttaaa	540
ttacatttga	aatataaacc	aaatgaaata	ttttactgaa	aaaaaaaaaa	aaaaaanccc	600
ca						602

<210> 41

<211> 970

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (37)

<223> n equals a,t,g, or c

<400> 41

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cagcttagag	taagaagctc	tgagaagttg	aatgaagggt	gagatagaga	tgctgaaccc	120
attcttscag	cttcttctag	tgttgttatt	tccagaatgg	ccaacacccc	tacattgata	180
cataaacaca	ttccaaggcc	ttgtgtaata	caaagttcac	cgctctcctg	gaataggagc	240
cctgggttct	agttctcact	ctgccactgg	gggaaaatcc	aattaaagtc	tggtttagtc	300
agcttggttc	accatagact	gggtggctta	aacagcagac	atctatttct	ggtagtttct	360
ggaggctaca	aatctaagag	caagggtgcc	gcattggtcac	attctggtga	gggscctctt	420
cctggcttgt	agacggctgc	yttctcaccg	tgtgctcaca	tagcctttcg	tgtgtgtgtg	480
tgtgtgtgtg	tgcgtkcgtg	caagcttccck	gatgtctctt	cttagaagga	caccaacccc	540
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ctccaaatgc	catcacattg	gagggtagag	cttcaacata	gggatttttg	gggacacaaa	660
cattcagttc	ataacaaagg	ctgtagtctt	tarcttctct	gtctgtgaaa	tgagagtgtt	720
gagattctct	ctagccttta	tcattttata	ttctgtgaga	tgtagatttg	cattattttc	780
gagttcgagt	tatatgaaat	gtttccctct	acattttctt	gggcaactga	gaactgaata	840
gggctagggt	taaatagagt	taggcagtta	ggcttattct	tttattttaat	aagcattttt	900
ggagcatcta	cggtgttcca	ggaactgaac	tgttgtaaac	attggagctg	taacagagaa	960
caaaagagac						970

<210> 42

<211> 1002

<212> DNA

<213> Homo sapiens

<400> 42

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gggacctggg	acgtgaaggc	catgggtggc	gataagactt	tccggagaca	ggaggcccag	180
aagggtgtcc	cagtgaagg	gacagccctg	ggcgggtggga	agttggaagc	cacgttcacc	240
ttcatgaggg	aggatcggtg	catccagaag	aaaatccctgr	tcgggaagac	ggaggagcct	300

ggcaaataca	gcgccctgtga	gccccctcccc	caytcccacc	cccacccytcc	cccaccgcca	360
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gtaggaattc	tgataccaac	cgggaggccc	tgaagaatt	taagaaattg	gtgcagcgca	780
agggactctc	ggaggaggac	atcttcacgc	ccctgcagac	gggaagctgc	gttcccgaac	840
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gaccacctgg	acctaccctc	cagccatgac	ccttccctgc	tcccaccac	ctgactccaa	960
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<210> 43

<211> 2581

<212> DNA

<213> Homo sapiens

<220>

<221> SITE

<222> (1591)

<223> n equals a,t,g, or c

<220>

<221> SITE

<222> (1703)

<223> n equals a,t,g, or c

<400> 43

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c						2581

<210> 44
 <211> 796
 <212> DNA
 <213> Homo sapiens

<400> 44						
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<210> 45
 <211> 2017
 <212> DNA
 <213> Homo sapiens

<400> 45						
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gatgtgggtat	gatgtacagt	gggaatgtaa	gacggactta	gatattgcat	acaaatttgg	480
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aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaa			2017

<210> 46
 <211> 981
 <212> DNA
 <213> Homo sapiens

<400> 46	
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cccccccc	aytcccaccc
caggtagaga	gtgcccaggc
aggggctggc	ctctccttcc
aggcttgtcc	gcagtcgaga
tgacacattg	aggaagctga
agctcatgta	cctgcaggag
agcaccatga	gggcstgctc
gggagggcct	ggaagaattt
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cacctccaga	gccacccta
agccatgacc	cttccctgct
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a	

<210> 47
 <211> 146
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (146)
 <223> Xaa equals stop translation

Met His Tyr Gln Met Ser Val Thr Leu Lys Tyr Glu Ile Lys Lys Leu
1 5 10 15

Val Gly His Leu Arg Leu Leu Ser His Asp Gln Val Ala Met Pro Tyr
35 40 45

Leu Leu Ser Phe Pro Arg Asn Asn Ile Ser Tyr Leu Val Leu Ser Met
65 70 75 80

Glu Met Phe Pro Ala Ala Gln Pro Ser Thr Ala Met Ala Arg Pro Thr
100 105 110

Cys Trp Gln Cys Lys Cys Met Pro Gly Ser Cys Thr Thr Ala Arg Ser
130 135 140

<210> 48

<212> PRT

<213> Homo sapiens

 $\langle 220 \rangle$

<221> SITE

 $\langle 222 \rangle \quad (312)$

<223> Xaa equals stop translation

<400> 48

Met Asn Ser Val Val Ser Leu Leu Leu Ile Leu Glu Pro Asp Lys Gln
1 5 10 15

Glu Ala Leu Ile Glu Ser Leu Cys Glu Lys Leu Val Lys Phe Arg Glu
20 25 30

Gly Glu Arg Pro Ser Leu Arg Leu Gln Leu Leu Ser Asn Leu Phe His
35 40 45

Gly Met Asp Lys Asn Thr Pro Val Arg Tyr Thr Val Tyr Cys Ser Leu
50 55 60

Ile Lys Val Ala Ala Ser Cys Gly Ala Ile Gln Tyr Ile Pro Thr Glu
65 70 75 80

Leu Asp Gln Val Arg Lys Trp Ile Ser Asp Trp Asn Leu Thr Thr Glu
 85 90 95
 Lys Lys His Thr Leu Leu Arg Leu Leu Tyr Glu Ala Leu Val Asp Cys
 100 105 110
 Lys Lys Ser Asp Ala Ala Ser Lys Val Met Val Glu Leu Leu Gly Ser
 115 120 125
 Tyr Thr Glu Asp Asn Ala Ser Gln Ala Arg Val Asp Ala His Arg Cys
 130 135 140
 Ile Val Arg Ala Leu Lys Asp Pro Asn Ala Phe Leu Phe Asp His Leu
 145 150 155 160
 Leu Thr Leu Lys Pro Val Lys Phe Leu Glu Gly Glu Leu Ile His Asp
 165 170 175
 Leu Leu Thr Ile Phe Val Ser Ala Lys Leu Ala Ser Tyr Val Lys Phe
 180 185 190
 Tyr Gln Asn Asn Lys Asp Phe Ile Asp Ser Leu Gly Leu Leu His Glu
 195 200 205
 Gln Asn Met Ala Lys Met Arg Leu Leu Thr Phe Met Gly Met Ala Val
 210 215 220
 Glu Asn Lys Glu Ile Ser Phe Asp Thr Met Gln Gln Glu Leu Gln Ile
 225 230 235 240
 Gly Ala Asp Asp Val Glu Ala Phe Val Ile Asp Ala Val Arg Thr Lys
 245 250 255
 Met Val Tyr Cys Lys Ile Asp Gln Thr Gln Arg Lys Val Val Val Ser
 260 265 270
 His Ser Thr His Arg Thr Phe Gly Lys Gln Gln Trp Gln Gln Leu Tyr
 275 280 285
 Asp Thr Leu Asn Ala Trp Lys Gln Asn Leu Asn Lys Val Lys Asn Ser
 290 295 300
 Leu Leu Ser Leu Ser Asp Thr Xaa
 305 310

<210> 49

<211> 64

<212> PRT

<213> Homo sapiens

<400> 49

Met Met Ser Phe Phe Cys Phe Val Met Gly Val Thr Val Ala Ala Thr
 1 5 10 15

Phe Thr Ala Ile Val Pro Arg Trp Arg Leu Ser Gln Lys Glu Ile Gly
 20 25 30

Ser Val Leu Ser Val Trp Leu Ser Arg Trp Arg Glu Asn Ser Leu Arg
 35 40 45

Ser Leu Val Ser Gln Ser Val Ala Arg Ser Gly Lys Val Val Ile Arg
 50 55 60

<210> 50

<211> 467

<212> PRT

<213> Homo sapiens

<400> 50

Met Leu Ser Arg Pro Gln Pro Pro Pro Asp Pro Leu Leu Leu Gln Arg
 1 5 10 15

Leu Pro Arg Pro Ser Ser Leu Ser Asp Lys Thr Gln Leu His Ser Arg
 20 25 30

Trp Leu Asp Ser Ser Arg Cys Leu Met Gln Gln Gly Ile Lys Ala Gly
 35 40 45

Asp Ala Leu Trp Leu Arg Phe Lys Tyr Tyr Ser Phe Phe Asp Leu Asp
 50 55 60

Pro Lys Thr Asp Pro Val Arg Leu Thr Gln Leu Tyr Glu Gln Ala Arg
 65 70 75 80

Trp Asp Leu Leu Leu Glu Glu Ile Asp Cys Thr Glu Glu Glu Met Met
 85 90 95

Val Phe Ala Ala Leu Gln Tyr His Ile Asn Lys Leu Ser Gln Ser Gly
 100 105 110

Glu Val Gly Glu Pro Ala Gly Thr Asp Pro Gly Leu Asp Asp Leu Asp
 115 120 125

Val Ala Leu Ser Asn Leu Glu Val Lys Leu Glu Gly Ser Ala Pro Thr
 130 135 140

Asp Val Leu Asp Ser Leu Thr Thr Ile Pro Glu Leu Lys Asp His Leu
 145 150 155 160

Arg Ile Phe Arg Pro Arg Lys Leu Thr Leu Lys Gly Tyr Arg Gln His
 165 170 175

Trp Val Val Phe Lys Glu Thr Thr Leu Ser Tyr Tyr Lys Ser Gln Asp
 180 185 190

Glu Ala Pro Gly Asp Pro Ile Gln Gln Leu Asn Leu Lys Gly Cys Glu
 195 200 205

Val Val Pro Asp Val Asn Val Ser Gly Gln Lys Phe Cys Ile Lys Leu
 210 215 220

10056531-00500

Leu Val Pro Ser Pro Glu Gly Met Ser Glu Ile Tyr Leu Arg Cys Gln
225 230 235 240

Asp Glu Gln Gln Tyr Ala Arg Trp Met Ala Gly Cys Arg Leu Ala Ser
245 250 255

Lys Gly Arg Thr Met Ala Asp Ser Ser Tyr Thr Ser Glu Val Gln Ala
260 265 270

Ile Leu Ala Phe Leu Ser Leu Gln Arg Thr Gly Ser Gly Gly Pro Gly
275 280 285

Asn His Pro His Gly Pro Asp Ala Ser Ala Glu Gly Leu Asn Pro Tyr
290 295 300

Gly Leu Val Ala Pro Arg Phe Gln Arg Lys Phe Lys Ala Lys Gln Leu
305 310 315 320

Thr Pro Arg Ile Leu Glu Ala His Gln Asn Val Ala Gln Leu Ser Leu
325 330 335

Ala Glu Ala Gln Leu Arg Phe Ile Gln Ala Trp Gln Ser Leu Pro Asp
340 345 350

Phe Gly Ile Ser Tyr Val Met Val Arg Phe Lys Gly Ser Arg Lys Asp
355 360 365

Glu Ile Leu Gly Ile Ala Asn Asn Arg Leu Ile Arg Ile Asp Leu Ala
370 375 380

Val Gly Asp Val Val Lys Thr Trp Arg Phe Ser Asn Met Arg Gln Trp
385 390 395 400

Asn Val Asn Trp Asp Ile Arg Gln Val Ala Ile Glu Phe Asp Glu His
405 410 415

Ile Asn Val Ala Phe Ser Cys Val Ser Ala Ser Cys Arg Ile Val His
420 425 430

Glu Tyr Ile Gly Gly Tyr Ile Phe Leu Ser Thr Arg Glu Arg Ala Arg
435 440 445

Gly Glu Glu Leu Asp Glu Asp Leu Phe Leu Gln Leu Thr Gly Gly His
450 455 460

Glu Ala Phe
465

<210> 51

<211> 83

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (83)

<400> 51

Arg Gly Leu Ala Ala Thr Cys Ser Leu Ser Ser Pro Ser His Leu Leu
20 25 30

Ala Ala Pro Arg Gln Pro Ser Pro Pro Ala Leu Leu Leu Pro Gly Pro
50 55 60

Trp Ser Xaa

<210> 52

<211> 63

<212> PRT

<213> Homo sapiens

 $\langle 220 \rangle$

<221> SITE

<222> (63)

<223> Xaa equals stop translation

<400> 52

Leu Thr Leu Val Cys Ser Gln Gly Gly Lys Ala Asp Met Asn Leu Leu
20 25 30

Ser Trp Asp Phe Arg Pro His Trp Leu Glu Gly Ile Arg Phe Leu Leu.
35 40 45

Gly Trp Gly Gln Ala Leu Met Ala Gly Leu Phe Pro Trp Leu Xaa
50 55 60

<210> 53

<211> 124

<212> PRT

<213> Homo sapiens

 $\langle 220 \rangle$

<221> SITE

 $\langle 222 \rangle$ (114)

<223> Xaa equals any of the naturally occurring L-amino acids

 $\langle 220 \rangle$

<221> SITE

<223> Xaa equals stop translation

Met Arg Gly Ser Trp His Arg Ser Pro Leu Pro Ala Val Val Leu Pro
1 5 10 15

Ser Val Leu Gln Thr Ala Leu Ser Pro Leu Ala Leu Cys Gln Ala Trp
20 25 30

Arg Arg Ala Val Pro His Gly Val Pro Ser Gln Arg Leu Arg Asn Gln
35 40 45

Glu Ala Ser Leu Val Pro Lys Gly Val Pro Arg Ala Trp Tyr Pro Gly
50 55 60

Pro Leu Gln Asn Gly Leu Trp Thr His Leu Glu Lys Gly Glu Leu Leu
65 70 75 80

Gly Leu Lys Pro Thr Pro Gly Gly Leu Leu Leu Leu Arg Ser Phe Trp
85 90 95

Asp Pro His Pro Ser Arg Pro Phe Leu Cys Thr Leu Leu Pro Pro Pro
100 105 110

Leu Xaa Ile Phe Pro Pro Leu Arg Cys Ser Ala Xaa
115 120

<211> 180

<212> PRT

<213> Homo sapiens

 $\langle 220 \rangle$

<221> SITE

<222> (8)

<223> Xaa equals any of the naturally occurring L-amino acids

 $\langle 220 \rangle$

<221> SITE

<222> (27)

<223> Xaa equals any of the naturally occurring L-amino acids

 $\langle 220 \rangle$

<221> SITE

<222> (84)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (85)

<223> Xaa equals any of the naturally occurring L-amino acids

 $\langle 220 \rangle$

<221> SITE

<222> (86)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (99)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (180)
 <223> Xaa equals stop translation

<400> 54
 Met Thr Ser Ala Gly Pro Val Xaa Leu Phe Leu Leu Val Ser Ile Ser
 1 5 10 15
 Thr Ser Val Ile Leu Met Gln His Leu Leu Xaa Ala Ser Tyr Cys Asp
 20 25 30
 Leu Leu His Lys Ala Ala Ala His Leu Gly Cys Trp Gln Lys Val Asp
 35 40 45
 Pro Ala Leu Cys Ser Asn Val Leu Gln His Pro Trp Thr Glu Glu Cys
 50 55 60
 Met Trp Pro Gln Gly Val Leu Val Lys His Ser Lys Asn Val Tyr Lys
 65 70 75 80
 Ala Val Gly Xaa Xaa Xaa Val Ala Ile Pro Ser Asp Val Ser His Phe
 85 90 95
 Arg Phe Xaa Phe Phe Phe Ser Lys Pro Leu Arg Ile Leu Asn Ile Leu
 100 105 110
 Leu Leu Leu Glu Gly Ala Val Ile Val Tyr Gln Leu Tyr Ser Leu Met
 115 120 125
 Ser Ser Glu Lys Trp His Gln Thr Ile Ser Leu Ala Leu Ile Leu Phe
 130 135 140
 Ser Asn Tyr Tyr Ala Phe Phe Lys Leu Leu Arg Asp Arg Leu Val Leu
 145 150 155 160
 Gly Lys Ala Tyr Ser Tyr Ser Ala Ser Pro Gln Arg Asp Leu Asp His
 165 170 175
 Arg Phe Ser Xaa
 180

<210> 55
 <211> 287
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (221)
 <223> Xaa equals any of the naturally occurring L-amino acids

<223> Xaa equals stop translation

Met Pro Leu Phe Lys Leu Tyr Met Val Met Ser Ala Cys Phe Leu Ala:
1 5 10 15

Ala Gly Ile Phe Trp Val Ser Ile Leu Cys Arg Asn Thr Tyr Ser Val
20 25 30

Phe Lys Ile His Trp Leu Met Ala Ala Leu Ala Phe Thr Lys Ser Ile
35 40 45

Ser Leu Leu Phe His Ser Ile Asn Tyr Tyr Phe Ile Asn Ser Gln Gly
50 55 60

Pro	Pro	His	Arg	Arg	Pro	Cys	Arg	His	Val	Leu	His	Arg	Thr	Pro	Ala
65					70					75					80

Glu Gly Arg Pro Pro Leu His His His Arg Pro Asp Trp Leu Arg Leu
85 90 95

Gly Phe Ile Lys Tyr Val Leu Ser Asp Lys Glu Lys Lys Val Phe Gly
100 105 110

Ile Val Ile Pro Met Gln Val Leu Ala Asn Val Ala Tyr Ile Ile Ile
115 120 125

Glu Ser Arg Glu Glu Gly Ala Thr Asn Tyr Val Leu Trp Lys Glu Ile
130 135 140

Leu Phe Leu Val Asp Leu Ile Cys Cys Gly Ala Ile Leu Phe Pro Val
145 150 155 160

Val Trp Ser Ile Arg His Leu Gln Asp Ala Ser Gly Thr Asp Gly Lys
165 170 175

Val Ala Val Asn Leu Ala Lys Leu Lys Leu Phe Arg His Tyr Tyr Val
180 185 190

Met Val Ile Cys Tyr Val Tyr Phe Thr Arg Ile Ile Ala Ile Leu Leu
195 200 205

Gln Val Ala Val Pro Phe Gln Trp Gln Trp Leu Tyr Xaa Leu Leu Val
210 215 220

Glu Gly Ser Thr Leu Ala Phe Phe Val Leu Thr Gly Tyr Lys Phe Gln
225 230 235 240

Pro Thr Gly Asn Asn Pro Tyr Leu Gln Leu Pro Gln Glu Asp Glu Glu
245 250 255

Asp Val Gln Met Glu Gln Val Met Thr Asp Ser Gly Phe Arg Glu Gly
260 265 270

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<210> 56
<211> 34
<212> PRT
<213> Homo sapiens
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```
<400> 56
Met  Pro  Met  Val  Phe  Leu  Leu  Leu  Phe  Asn  Leu  Met  Ser  Trp  Leu  Ile
   1              5              10             15
```

Val Xaa

```
<210> 57
<211> 24
<212> PRT
<213> Homo sapiens
```

```
<220>
<221> SITE
<222> (24)
<223> Xaa equals stop translation
```

<400> 57
Met Lys Ile Val Val Leu Leu Pro Leu Phe Leu Leu Ala Thr Phe Pro
1 5 10 15

Arg Lys Leu Gln Thr Cys Leu Xaa
20

```
<210> 58
<211> 47
<212> PRT
<213> Homo sapiens
```

```
<220>
<221> SITE
<222> (47)
<223> Xaa equals stop translation
```

```
<400> 58
Met Ser Gly Gly Glu Gly Ala Ala Leu Pro Ile Leu Leu Leu Leu
  1             5             10             15
```

Ala Leu Arg Gly Thr Phe His Gly Ala Arg Pro Gly Gly Gly Ala Ser

20

25

30

Gly Ile Trp Cys Leu Leu Leu Pro Glu Gln Glu Pro Pro Val Xaa
 35 40 45

<210> 59
 <211> 114
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (114)
 <223> Xaa equals stop translation

<400> 59
 Met Ala Arg Gly Ser Leu Arg Arg Leu Leu Arg Leu Leu Val Leu Gly
 1 5 10 15

Leu Trp Leu Ala Leu Leu Arg Ser Val Ala Gly Glu Gln Ala Pro Gly
 20 25 30

Thr Ala Pro Cys Ser Arg Gly Ser Ser Trp Ser Ala Asp Leu Asp Lys
 35 40 45

Cys Met Asp Cys Ala Ser Cys Arg Ala Arg Pro His Ser Asp Phe Cys
 50 55 60

Leu Gly Cys Ala Ala Ala Pro Pro Ala Pro Phe Arg Leu Leu Trp Pro
 65 70 75 80

Ile Leu Gly Gly Ala Leu Ser Leu Thr Phe Val Leu Gly Leu Leu Ser
 85 90 95

Gly Phe Leu Val Trp Arg Arg Cys Arg Arg Glu Arg Ser Ser Pro Pro
 100 105 110

Pro Xaa

<210> 60
 <211> 32
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (26)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (32)
 <223> Xaa equals stop translation

<400> 60

<400> 62
Met Ala Ala Pro Val Asp Leu Glu Leu Lys Lys Ala Phe Thr Glu Leu
1 5 10 15

Gln Ala Lys Val Ile Asp Thr Gln Gln Lys Val Lys Leu Ala Asp Ile
 20 25 30

Gln Ile Glu Gln Leu Asn Arg Thr Lys Lys His Ala His Leu Thr Asp
 35 40 45

Thr Glu Ile Met Thr Leu Val Asp Glu Thr Asn Met Tyr Glu Gly Val
 50 55 60

Gly Arg Met Phe Ile Leu Gln Ser Lys Glu Ala Ile His Ser Gln Leu
 65 70 75 80

Leu Glu Lys Gln Lys Ile Ala Glu Glu Lys Ile Lys Glu Leu Glu Gln
 85 90 95

Lys Lys Ser Tyr Leu Glu Arg Arg
 100

<210> 63
 <211> 146
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (146)
 <223> Xaa equals stop translation

<400> 63
 Met Pro Ser Gly Phe Gln Thr Cys Leu Leu Phe Thr Leu Ser Pro Phe
 1 5 10 15

Ser Leu Ser Lys Ile Val Gly Val Pro Ser Gln Gln Leu Pro Gly Gln
 20 25 30

Leu Ser Glu Gln Gly Gly Leu Cys Gly His Glu Gly Glu Pro Ala Arg
 35 40 45

Thr Val Pro Glu Thr Gln Leu Pro Leu Pro Phe Asn Ser Ala Gly Pro
 50 55 60

Pro His Leu Lys Cys Thr Gly Ala Gly Lys Arg Val Trp Ser Pro Pro
 65 70 75 80

Arg Arg Ala Ala Gln Glu Val Ser Leu Gln Leu Val Ser Cys His Pro
 85 90 95

Cys Arg Gln His Thr Ser Arg Ala Phe Ser Leu Ala Thr Asp Arg Thr
 100 105 110

Ala Ser Ala Arg Val Cys Cys Arg Ser Pro Leu Ser Thr Leu Ile His
 115 120 125

His Thr Arg Gly Gly Gln Arg Cys Arg Glu His Gly Leu Ser Leu Pro
 130 135 140

Leu Xaa
145

<210> 64
<211> 31
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (31)
<223> Xaa equals stop translation

<400> 64
Met Ala Ile Leu Met Leu Leu Ala Gly Ser Pro Cys Thr Leu Ser Phe
1 5 10 15
Ser Thr Asp Thr Gly Ser Ser Ala Pro Gly Pro Lys Ile Pro Xaa
20 25 30

<210> 65
<211> 260
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (260)
<223> Xaa equals stop translation

<400> 65
Met Asp Pro Gln Gly Gln Thr Leu Leu Leu Phe Leu Phe Val Asp Phe
1 5 10 15
His Ser Ala Phe Pro Val Gln Gln Met Glu Ile Trp Gly Val Tyr Thr
20 25 30
Leu Leu Thr Thr His Leu Asn Ala Ile Leu Val Glu Ser His Ser Val
35 40 45
Val Gln Gly Ser Ile Gln Phe Thr Val Asp Lys Val Leu Glu Gln His
50 55 60
His Gln Ala Ala Lys Ala Gln Gln Lys Leu Gln Ala Ser Leu Ser Val
65 70 75 80
Ala Val Asn Ser Ile Met Ser Ile Leu Thr Gly Ser Thr Arg Ser Ser
85 90 95
Phe Arg Lys Met Cys Leu Gln Thr Leu Gln Ala Ala Asp Thr Gln Glu
100 105 110
Phe Arg Thr Lys Leu His Lys Val Phe Arg Glu Ile Thr Gln His Gln
115 120 125
Phe Leu His His Cys Ser Cys Glu Val Lys Gln Leu Thr Leu Glu Lys

```

130              135              140
Lys Asp Ser Ala Gln Gly Thr Glu Asp Ala Pro Asp Asn Ser Ser Leu
145              150              155              160

Glu Leu Leu Ala Asp Thr Ser Gly Gln Ala Glu Asn Lys Arg Leu Lys
165              170              175

Arg Gly Ser Pro Arg Ile Glu Glu Met Arg Ala Leu Arg Ser Ala Arg
180              185              190

Ala Pro Ser Pro Ser Glu Ala Ala Pro Arg Arg Pro Glu Ala Thr Ala
195              200              205

Ala Pro Leu Thr Pro Arg Gly Arg Glu His Arg Glu Ala His Gly Arg
210              215              220

Ala Leu Ala Pro Gly Arg Ala Ser Leu Gly Ser Arg Leu Glu Asp Val
225              230              235              240

Leu Trp Leu Gln Glu Val Ser Asn Leu Ser Glu Trp Leu Ser Pro Ser
245              250              255

Pro Gly Pro Xaa
260

<210> 66
<211> 339
<212> PRT
<213> Homo sapiens

<400> 66
Met Ala Ala Ala Cys Gly Pro Gly Ala Ala Gly Tyr Cys Leu Leu Leu
1      5              10              15

Gly Leu His Leu Phe Leu Leu Thr Ala Gly Pro Ala Leu Gly Trp Asn
20              25              30

Asp Pro Asp Arg Met Leu Leu Arg Asp Val Lys Ala Leu Thr Leu His
35              40              45

Tyr Asp Arg Tyr Thr Thr Ser Arg Arg Leu Asp Pro Ile Pro Gln Leu
50              55              60

Lys Cys Val Gly Gly Thr Ala Gly Cys Asp Ser Tyr Thr Pro Lys Val
65              70              75              80

Ile Gln Cys Gln Asn Lys Gly Trp Asp Gly Tyr Asp Val Gln Trp Glu
85              90              95

Cys Lys Thr Asp Leu Asp Ile Ala Tyr Lys Phe Gly Lys Thr Val Val
100             105             110

Ser Cys Glu Gly Tyr Glu Ser Ser Glu Asp Gln Tyr Val Leu Arg Gly
115             120             125

Ser Cys Gly Leu Glu Tyr Asn Leu Asp Tyr Thr Glu Leu Gly Leu Gln

```

130 135 140
 Lys Leu Lys Glu Ser Gly Lys Gln His Gly Phe Ala Ser Phe Ser Asp
 145 150 155 160
 Tyr Tyr Tyr Lys Trp Ser Ser Ala Asp Ser Cys Asn Met Ser Gly Leu
 165 170 175
 Ile Thr Ile Val Val Leu Leu Gly Ile Ala Phe Val Val Tyr Lys Leu
 180 185 190
 Phe Leu Ser Asp Gly Gln Tyr Ser Pro Pro Pro Tyr Ser Glu Tyr Pro
 195 200 205
 Pro Phe Ser His Arg Tyr Gln Arg Phe Thr Asn Ser Ala Gly Pro Pro
 210 215 220
 Pro Pro Gly Phe Lys Ser Glu Phe Thr Gly Pro Gln Asn Thr Gly His
 225 230 235 240
 Gly Ala Thr Ser Gly Phe Gly Ser Ala Phe Thr Gly Gln Gln Gly Tyr
 245 250 255
 Glu Asn Ser Gly Pro Gly Phe Trp Thr Gly Leu Gly Thr Gly Gly Ile
 260 265 270
 Leu Gly Tyr Leu Phe Gly Ser Asn Arg Ala Ala Thr Pro Phe Ser Asp
 275 280 285
 Ser Trp Tyr Tyr Pro Ser Tyr Pro Pro Ser Tyr Pro Gly Thr Trp Asn
 290 295 300
 Arg Ala Tyr Ser Pro Leu His Gly Gly Ser Gly Ser Tyr Ser Val Cys
 305 310 315 320
 Ser Asn Ser Asp Thr Lys Thr Arg Thr Ala Ser Gly Tyr Gly Gly Thr
 325 330 335
 Arg Arg Arg

<210> 67
 <211> 27
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (27)
 <223> Xaa equals stop translation

<400> 67
 Met His Ala Leu Ile Leu Gln Phe Ile Phe Ser Leu Cys Met Tyr Ile
 1 5 10 15

Ser Leu Phe Ser Ala Ala Arg Phe Leu Phe Xaa
 20 25

<210> 68
 <211> 76
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (64)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (65)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 68
 Met Ser Gln Ser Val Ser Ser Ser Phe Leu Ile Leu Thr Leu Leu Leu
 1 5 10 15
 Ser Val Gly Phe Gln Cys Leu Thr Leu Tyr Thr Thr Val Thr Thr
 20 25 30
 Cys Leu Trp Gly Pro Pro Arg Ala Ala Gly Arg Leu Phe Val Gln Ser
 35 40 45
 Leu Pro Ser Cys Glu Cys Cys Cys Arg Ala Arg Arg Gly Ala Val Xaa
 50 55 60
 Xaa Ser Pro Pro Trp Arg Pro Trp Pro Glu Gln Val
 65 70 75

<210> 69
 <211> 216
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (216)
 <223> Xaa equals stop translation

<400> 69
 Met Tyr Leu Ser Ile Ile Phe Leu Ala Phe Val Ser Ile Asp Arg Cys
 1 5 10 15
 Leu Gln Leu Thr His Ser Cys Lys Ile Tyr Arg Ile Gln Glu Pro Gly
 20 25 30
 Phe Ala Lys Met Ile Ser Thr Val Val Trp Leu Met Val Leu Leu Ile
 35 40 45
 Met Val Pro Asn Met Met Ile Pro Ile Lys Asp Ile Lys Glu Lys Ser
 50 55 60
 Asn Val Gly Cys Met Glu Phe Lys Lys Glu Phe Gly Arg Asn Trp His

65 70 75 80

Leu Leu Thr Asn Phe Ile Cys Val Ala Ile Phe Leu Asn Phe Ser Ala
85 90 95

Ile Ile Leu Ile Ser Asn Cys Leu Val Ile Arg Gln Leu Tyr Arg Asn
100 105 110

Lys Asp Asn Glu Asn Tyr Pro Asn Val Lys Lys Ala Leu Ile Asn Ile
115 120 125

Leu Leu Val Thr Thr Gly Tyr Ile Ile Cys Phe Val Pro Tyr His Ile
130 135 140

Val Arg Ile Pro Tyr Thr Leu Ser Gln Thr Glu Val Ile Thr Asp Cys
145 150 155 160

Ser Thr Arg Ile Ser Leu Phe Lys Ala Lys Glu Ala Thr Leu Leu Leu
165 170 175

Ala Val Ser Asn Leu Cys Phe Asp Pro Ile Leu Tyr Tyr His Leu Ser
180 185 190

Lys Ala Phe Arg Ser Lys Val Thr Glu Thr Phe Ala Ser Pro Lys Glu
195 200 205

Thr Lys Val Arg Lys Lys Asn Xaa
210 215

<210> 70

<211> 407

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (407)

<223> Xaa equals stop translation

<400> 70

Met His Pro Ala Val Phe Leu Ser Leu Pro Asp Leu Arg Cys Ser Leu
1 5 10 15

Leu Leu Leu Val Thr Trp Val Phe Thr Pro Val Thr Thr Glu Ile Thr
20 25 30

Ser Leu Asp Thr Glu Asn Ile Asp Glu Ile Leu Asn Asn Ala Asp Val
35 40 45

Ala Leu Val Asn Phe Tyr Ala Asp Trp Cys Arg Phe Ser Gln Met Leu
50 55 60

His Pro Ile Phe Glu Glu Ala Ser Asp Val Ile Lys Glu Glu Phe Pro
65 70 75 80

Asn Glu Asn Gln Val Val Phe Ala Arg Val Asp Cys Asp Gln His Ser
85 90 95

Asp Ile Ala Gln Arg Tyr Arg Ile Ser Lys Tyr Pro Thr Leu Lys Leu
 100 105 110
 Phe Arg Asn Gly Met Met Met Lys Arg Glu Tyr Arg Gly Gln Arg Ser
 115 120 125
 Val Lys Ala Leu Ala Asp Tyr Ile Arg Gln Gln Lys Ser Asp Pro Ile
 130 135 140
 Gln Glu Ile Arg Asp Leu Ala Glu Ile Thr Thr Leu Asp Arg Ser Lys
 145 150 155 160
 Arg Asn Ile Ile Gly Tyr Phe Glu Gln Lys Asp Ser Asp Asn Tyr Arg
 165 170 175
 Val Phe Glu Arg Val Ala Asn Ile Leu His Asp Asp Cys Ala Phe Leu
 180 185 190
 Ser Ala Phe Gly Asp Val Ser Lys Pro Glu Arg Tyr Ser Gly Asp Asn
 195 200 205
 Ile Ile Tyr Lys Pro Pro Gly His Ser Ala Pro Asp Met Val Tyr Leu
 210 215 220
 Gly Ala Met Thr Asn Phe Asp Val Thr Tyr Asn Trp Ile Gln Asp Lys
 225 230 235 240
 Cys Val Pro Leu Val Arg Glu Ile Thr Phe Glu Asn Gly Glu Glu Leu
 245 250 255
 Thr Glu Glu Gly Leu Pro Phe Leu Ile Leu Phe His Met Lys Glu Asp
 260 265 270
 Thr Glu Ser Leu Glu Ile Phe Gln Asn Glu Val Ala Arg Gln Leu Ile
 275 280 285
 Ser Glu Lys Gly Thr Ile Asn Phe Leu His Ala Asp Cys Asp Lys Phe
 290 295 300
 Arg His Pro Leu Leu His Ile Gln Lys Thr Pro Ala Asp Cys Pro Val
 305 310 315 320
 Ile Ala Ile Asp Ser Phe Arg His Met Tyr Val Phe Gly Asp Phe Lys
 325 330 335
 Asp Val Leu Ile Pro Gly Lys Leu Lys Gln Phe Val Phe Asp Leu His
 340 345 350
 Ser Gly Lys Leu His Arg Glu Phe His His Gly Pro Asp Pro Thr Asp
 355 360 365
 Thr Ala Pro Gly Glu Gln Ala Gln Asp Val Ala Ser Ser Pro Pro Glu
 370 375 380
 Ser Ser Phe Gln Lys Leu Ala Pro Ser Glu Tyr Arg Tyr Thr Leu Leu
 385 390 395 400

Leu His Ala Leu Thr Leu Trp Gly Ala Pro Phe Pro Thr Thr Trp Val
20 25 30

Ser Cys Gln Pro Arg Ser Val Leu Arg Pro Ser Pro Val Arg Pro Gly
 35 40 45

Val Pro Pro Leu Ala Ala Xaa Pro Leu Cys Ser Cys Val Ser Leu Phe
 50 55 60

Phe Phe Arg Val Val Leu His Val Ser Ser Ile Cys Gly Val Ala Leu
 65 70 75 80

Gly Pro Phe Arg Thr Gly Ala Pro Ala Gln Leu Leu Gly Pro Pro Pro
 85 90 95

Val Ala Gln Gly Arg Leu Phe Val Pro Gln Pro Gln Ala Val Ser Gly
 100 105 110

Glu Asn Arg Cys Val Val Pro Glu Leu Lys Phe Trp Glu Gly Gln Cys
 115 120 125

Pro Phe Leu Trp Gly Pro Gly Leu Val Leu His Cys Phe Lys Arg Ser
 130 135 140

Cys His Ser Asn Arg Gln Pro Cys Asn Arg Arg Ala Ala Cys Ser Pro
 145 150 155 160

<210> 74

<211> 26

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (17)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (26)

<223> Xaa equals stop translation

<400> 74

Met Ala Gly Ile His Arg Ala Phe Leu Val Phe Cys Leu Trp Gly Leu
 1 5 10 15

Xaa Leu Cys Val Val Gly Gly Pro Trp Xaa
 20 25

<210> 75

<211> 91

<212> PRT

<213> Homo sapiens

<400> 75

Met Ala Ala Ala Glu Glu Glu Asp Gly Gly Pro Glu Ala Lys Ile Ala

1	5	10	15
Ser Gly Ala Gly Arg Ala Arg Pro Ser Asn Val Ile Tyr Val Trp Arg			
20	25	30	
Leu Leu Gly Lys Leu Trp Ser Val Cys Val Ala Thr Cys Thr Val Gly			
35	40	45	
His Val Phe Ile Ser Gly Trp Arg His Gly Gln Asn Gly Lys Ser Val			
50	55	60	
Gln Tyr Val Lys Leu Gly Ser Ala Glu Arg Arg Leu Ser Arg Phe Met			
65	70	75	80
Gly Glu Gly Ala Arg Ser Pro Arg Ile Pro Asp			
85	90		

<210> 76
 <211> 33
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (33)
 <223> Xaa equals stop translation

<400> 76
 Met Thr Ile Trp Gln Leu Phe Ala Val Leu Ile Val Leu Phe Ala Lys
 1 5 10 15
 Ser Arg Glu Ile Ser Thr Glu Gly Glu Pro Cys Val Leu Ser Lys Asn
 20 25 30

Xaa

<210> 77
 <211> 23
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (6)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (23)
 <223> Xaa equals stop translation

<400> 77
 Met Leu Asn Pro Phe Xaa Gln Leu Leu Leu Val Leu Leu Phe Pro Glu
 1 5 10 15

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<210> 78
<211> 173
<212> PRT
<213> Homo sapiens
```

```
<220>  
<221> SITE  
<222> (21)  
<223> Xaa equals any of the naturally occurring L-amino acids
```

```
<220>  
<221> SITE  
<222> (102)  
<223> Xaa equals any of the naturally occurring L-amino acids
```

Ser Xaa Thr Leu Xaa Glu Glu Asp Ile Thr Gly Thr Trp Tyr Val Lys
20 25 30

Ser Pro Val Lys Val Thr Ala Leu Gly Gly Gly Lys Leu Glu Ala Thr
50 55 60

Phe Thr Phe Met Arg Glu Asp Arg Cys Ile Gln Lys Lys Ile Leu Xaa
65 70 75 80

Arg Lys Thr Glu Glu Pro Gly Lys Tyr Ser Ala Cys Glu Pro Leu Pro
85 90 95

His Ser His Pro His Xaa Pro Pro Pro Pro Thr Pro Val His Gln Pro
100 105 110

Pro Gln Val Glu Ser Ala Gln Ala Ala Leu Leu Pro Gly Pro Gln Leu
115 120 125

Cys Pro Pro Pro Arg Arg Gly Trp Pro Leu Leu Pro Gly Gly Leu Val
130 135 140

Ala Leu Thr Ser Asp Thr Gly Cys Asp Arg Leu Val Arg Ser Arg Asp

145

150

155

160

Gly Pro Asp His Ala Cys Pro Leu Gly Gly Pro Ser His
165 170

<210> 79

<211> 208

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (148)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (186)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (208)

<223> Xaa equals stop translation

<400> 79

Met Ala Asp Ser Ser Tyr Thr Ser Glu Val Gln Ala Ile Leu Ala Phe
1 5 10 15

Leu Ser Leu Gln Arg Thr Gly Ser Gly Gly Pro Gly Asn His Pro His
20 25 30

Gly Pro Asp Ala Ser Ala Glu Gly Leu Asn Pro Tyr Gly Leu Val Ala
35 40 45

Pro Arg Phe Gln Arg Lys Phe Lys Ala Lys Gln Leu Thr Pro Arg Ile
50 55 60

Leu Glu Ala His Gln Asn Val Ala Gln Leu Ser Leu Ala Glu Ala Gln
65 70 75 80

Leu Arg Phe Ile Gln Ala Trp Gln Ser Leu Pro Asp Phe Gly Ile Ser
85 90 95

Tyr Val Met Val Arg Phe Lys Gly Ser Arg Lys Asp Glu Ile Leu Gly
100 105 110

Ile Ala Asn Asn Arg Leu Ile Arg Ile Asp Leu Ala Val Gly Asp Val
115 120 125

Val Lys Thr Trp Arg Phe Ser Asn Met Arg Gln Trp Asn Val Asn Trp
130 135 140

Asp Ile Arg Xaa Val Ala Ile Glu Phe Asp Glu His Ile Asn Val Ala
145 150 155 160

Phe Ser Cys Val Ser Ala Ser Cys Arg Ile Val His Glu Tyr Ile Gly

145 150 155 160 165 170 175 180 185 190 195 200 205 210 215 220 225 230 235 240 245 250 255 260 265 270 275 280 285 290 295 300 305 310 315 320 325 330 335 340 345 350 355 360 365 370 375 380 385 390 395 400 405 410 415 420 425 430 435 440 445 450 455 460 465 470 475 480 485 490 495 500 505 510 515 520 525 530 535 540 545 550 555 560 565 570 575 580 585 590 595 600 605 610 615 620 625 630 635 640 645 650 655 660 665 670 675 680 685 690 695 700 705 710 715 720 725 730 735 740 745 750 755 760 765 770 775 780 785 790 795 800 805 810 815 820 825 830 835 840 845 850 855 860 865 870 875 880 885 890 895 900 905 910 915 920 925 930 935 940 945 950 955 960 965 970 975 980 985 990 995

175

Asp Glu Asp Leu Phe Leu Gln Leu Thr Gly Gly His Glu Ala Phe Xaa
195 200 205

<213> Homo sapiens

<223> Xaa equals any of the naturally occurring L-amino acids

<223> Xaa equals any of the naturally occurring L-amino acids

<223> Xaa equals stop translation

Pro His Pro Arg Arg Pro Glu Val Gln Gly Ala Trp Ala Val Val Pro

130

135

140

Leu Xaa
145

<210> 81
<211> 23
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (23)
<223> Xaa equals stop translation

<400> 81
Met Ala Ala Ala Cys Gly Pro Gly Ala Ala Gly Thr Ala Cys Ser Ser
1 5 10 15

Ala Cys Ile Cys Phe Cys Xaa
20

<210> 82
<211> 31
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (21)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (31)
<223> Xaa equals stop translation

<400> 82
Met Lys Thr Leu Phe Leu Gly Val Thr Leu Gly Leu Ala Leu Pro Cys
1 5 10 15

Pro Ser Pro Trp Xaa Arg Arg Ile Ser Gln Gly Pro Gly Thr Xaa
20 25 30

<210> 83
<211> 374
<212> PRT
<213> Homo sapiens

<400> 83
Met Ser Val Pro Ala Phe Ile Asp Ile Ser Glu Glu Asp Gln Ala Ala
1 5 10 15

Glu Leu Arg Ala Tyr Leu Lys Ser Lys Gly Ala Glu Ile Ser Glu Glu
20 25 30

105020-12220000

Val Tyr Cys Lys Ile Asp Gln Thr Gln Arg Lys Val Val Val Ser His
325 330 335

<212> PRT

<213> Homo sapiens

<400> 88

Val Ala Arg Pro Ser Ser Leu Phe Arg Ser Ala Trp Ser Cys Glu Trp
1 5 10 15

<210> 89

<211> 12

<212> PRT

<213> Homo sapiens

<400> 89

Leu Arg Leu Gln Leu Leu Ser Asn Leu Phe His Gly
1 5 10

<210> 90

<211> 17

<212> PRT

<213> Homo sapiens

<400> 90

Lys Asp Val Glu Ser Val Met Asn Ser Val Val Ser Leu Leu Leu Ile
1 5 10 15

Leu

<210> 91

<211> 26

<212> PRT

<213> Homo sapiens

<400> 91

Asp Ala Ala Ser Lys Val Met Val Glu Leu Leu Gly Ser Tyr Thr Glu
1 5 10 15

Asp Asn Ala Ser Gln Ala Arg Val Asp Ala
20 25

<210> 92

<211> 10

<212> PRT

<213> Homo sapiens

<400> 92

Val Glu Ala Phe Val Ile Asp Ala Val Arg
1 5 10

<210> 93

<211> 18
 <212> PRT
 <213> Homo sapiens

<400> 93
 Lys Met Arg Leu Leu Thr Phe Met Gly Met Ala Val Glu Asn Lys Glu
 1 5 10 15

Ile Ser

<210> 94
 <211> 196
 <212> PRT
 <213> Homo sapiens

<400> 94
 Met Glu Ala Val Pro Glu Gly Asp Trp Phe Cys Thr Val Cys Leu Ala
 1 5 10 15

Gln Gln Val Glu Gly Glu Phe Thr Gln Lys Pro Gly Phe Pro Lys Arg
 20 25 30

Gly Gln Lys Arg Lys Ser Gly Tyr Ser Leu Asn Phe Ser Glu Gly Asp
 35 40 45

Gly Arg Arg Arg Arg Val Leu Leu Arg Gly Arg Glu Ser Pro Ala Ala
 50 55 60

Gly Pro Arg Tyr Ser Glu Glu Gly Leu Ser Pro Ser Lys Arg Arg Arg
 65 70 75 80

Leu Ser Met Arg Asn His His Ser Asp Leu Thr Phe Cys Glu Ile Ile
 85 90 95

Leu Met Glu Met Glu Ser His Asp Ala Ala Trp Pro Phe Leu Glu Pro
 100 105 110

Val Asn Pro Arg Leu Val Ser Gly Tyr Arg Arg Ile Ile Lys Asn Pro
 115 120 125

Met Asp Phe Ser Thr Met Arg Glu Arg Leu Leu Arg Gly Gly Tyr Thr
 130 135 140

Ser Ser Glu Glu Phe Ala Ala Asp Ala Leu Leu Val Phe Asp Asn Cys
 145 150 155 160

Gln Thr Phe Asn Glu Asp Asp Ser Glu Val Gly Lys Ala Gly His Ile
 165 170 175

Met Arg Arg Phe Phe Glu Ser Arg Trp Glu Glu Phe Tyr Gln Gly Lys
 180 185 190

Gln Ala Asn Leu
 195

<210> 95
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 95
 Met Glu Ala Val Pro Glu Gly Asp Trp Phe Cys Thr Val Cys Leu Ala
 1 5 10 15

Gln Gln Val Glu
 20

<210> 96
 <211> 21
 <212> PRT
 <213> Homo sapiens

<400> 96
 Gly Glu Phe Thr Gln Lys Pro Gly Phe Pro Lys Arg Gly Gln Lys Arg
 1 5 10 15

Lys Ser Gly Tyr Ser
 20

<210> 97
 <211> 21
 <212> PRT
 <213> Homo sapiens

<400> 97
 Leu Asn Phe Ser Glu Gly Asp Gly Arg Arg Arg Val Leu Leu Arg
 1 5 10 15

Gly Arg Glu Ser Pro
 20

<210> 98
 <211> 20
 <212> PRT
 <213> Homo sapiens

<400> 98
 Ala Ala Gly Pro Arg Tyr Ser Glu Glu Gly Leu Ser Pro Ser Lys Arg
 1 5 10 15

Arg Arg Leu Ser
 20

<210> 99
 <211> 21
 <212> PRT
 <213> Homo sapiens

<400> 99

Glu

<210> 104
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 104
 Ser Arg Trp Glu Glu Phe Tyr Gln Gly Lys Gln Ala Asn Leu
 1 5 10

<210> 105
 <211> 35
 <212> PRT
 <213> Homo sapiens

<400> 105
 Met Ser Glu Ile Tyr Leu Arg Cys Gln Asp Glu Gln Gln Tyr Ala Arg
 1 5 10 15
 Trp Met Ala Gly Cys Arg Leu Ala Ser Lys Gly Arg Thr Met Ala Asp
 20 25 30

Ser Ser Tyr
 35

<210> 106
 <211> 45
 <212> PRT
 <213> Homo sapiens

<400> 106
 Leu Val Ala Pro Arg Phe Gln Arg Lys Phe Lys Ala Lys Gln Leu Thr
 1 5 10 15

Pro Arg Ile Leu Glu Ala His Gln Asn Val Ala Gln Leu Ser Leu Ala
 20 25 30

Glu Ala Gln Leu Arg Phe Ile Gln Ala Trp Gln Ser Leu
 35 40 45

<210> 107
 <211> 23
 <212> PRT
 <213> Homo sapiens

<400> 107
 Val Gly Asp Val Val Lys Thr Trp Arg Phe Ser Asn Met Arg Gln Trp
 1 5 10 15

Asn Val Asn Trp Asp Ile Arg
 20

<210> 108
 <211> 26

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (83)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (123)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (194)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 112

Met Val Thr Thr Ile Val Leu Gly Arg Arg Phe Ile Gly Ser Ile Val
1 5 10 15

Lys Glu Ala Ser Gln Arg Gly Lys Val Ser Leu Phe Arg Ser Ile Leu
20 25 30

Leu Phe Leu Thr Arg Phe Thr Val Leu Thr Ala Thr Gly Trp Ser Leu
35 40 45

Cys Arg Ser Leu Ile His Leu Phe Arg Thr Tyr Ser Phe Leu Asn Leu
50 55 60

Leu Phe Leu Cys Tyr Pro Phe Gly Met Tyr Ile Pro Phe Leu Gln Leu
65 70 75 80

Asn Xaa Xaa Leu Arg Lys Thr Ser Leu Phe Asn His Met Ala Ser Met
85 90 95

Gly Pro Arg Glu Ala Val Ser Gly Leu Ala Lys Ser Arg Asp Tyr Leu
100 105 110

Leu Thr Leu Arg Glu Thr Trp Lys Gln His Xaa Arg Gln Leu Tyr Gly
115 120 125

Pro Asp Ala Met Pro Thr His Ala Cys Cys Leu Ser Pro Ser Leu Ile
130 135 140

Arg Ser Glu Val Glu Phe Leu Lys Met Asp Phe Asn Trp Arg Met Lys
145 150 155 160

Glu Val Leu Val Ser Ser Met Leu Ser Ala Tyr Tyr Val Ala Phe Val
165 170 175

Pro Val Trp Phe Val Lys Asn Thr His Tyr Tyr Asp Lys Arg Trp Ser
180 185 190

Cys Xaa Thr Leu Pro Ala Gly Val His Gln His Leu Arg Asp Pro His
195 200 205

Ala Ala Pro Ala Ala Cys Gln Leu Leu

210

215

<210> 113

<211> 26

<212> PRT

<213> Homo sapiens

<400> 113

Met Val Thr Thr Ile Val Leu Gly Arg Arg Phe Ile Gly Ser Ile Val
 1 5 10 15

Lys Glu Ala Ser Gln Arg Gly Lys Val Ser
 20 25

<210> 114

<211> 23

<212> PRT

<213> Homo sapiens

<400> 114

Leu Phe Arg Ser Ile Leu Leu Phe Leu Thr Arg Phe Thr Val Leu Thr
 1 5 10 15

Ala Thr Gly Trp Ser Leu Cys
 20

<210> 115

<211> 30

<212> PRT

<213> Homo sapiens

<400> 115

Arg Ser Leu Ile His Leu Phe Arg Thr Tyr Ser Phe Leu Asn Leu Leu
 1 5 10 15

Phe Leu Cys Tyr Pro Phe Gly Met Tyr Ile Pro Phe Leu Gln
 20 25 30

<210> 116

<211> 30

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (3)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (4)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 116

1005551-1055551

Leu Asn Xaa Xaa Leu Arg Lys Thr Ser Leu Phe Asn His Met Ala Ser
 1 5 10 15

Met Gly Pro Arg Glu Ala Val Ser Gly Leu Ala Lys Ser Arg
 20 25 30

<210> 117
 <211> 30
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (14)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 117
 Asp Tyr Leu Leu Thr Leu Arg Glu Thr Trp Lys Gln His Xaa Arg Gln
 1 5 10 15

Leu Tyr Gly Pro Asp Ala Met Pro Thr His Ala Cys Cys Leu
 20 25 30

<210> 118
 <211> 31
 <212> PRT
 <213> Homo sapiens

<400> 118
 Ser Pro Ser Leu Ile Arg Ser Glu Val Glu Phe Leu Lys Met Asp Phe
 1 5 10 15

Asn Trp Arg Met Lys Glu Val Leu Val Ser Ser Met Leu Ser Ala
 20 25 30

<210> 119
 <211> 27
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (24)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 119
 Tyr Tyr Val Ala Phe Val Pro Val Trp Phe Val Lys Asn Thr His Tyr
 1 5 10 15

Tyr Asp Lys Arg Trp Ser Cys Xaa Thr Leu Pro
 20 25

<210> 120
 <211> 20

<213> Homo sapiens

<400> 124

Phe Ile Lys Tyr Val Leu Ser Asp Lys Glu Lys Lys Val Phe Gly Ile
1 5 10 15

Val

<210> 125

<211> 13

<212> PRT

<213> Homo sapiens

<400> 125

Ile Pro Met Gln Val Leu Ala Asn Val Ala Tyr Ile Ile
1 5 10

<210> 126

<211> 13

<212> PRT

<213> Homo sapiens

<400> 126

Ile Pro Met Gln Val Leu Ala Asn Val Ala Tyr Ile Ile
1 5 10

<210> 127

<211> 15

<212> PRT

<213> Homo sapiens

<400> 127

Asp Gly Lys Val Ala Val Asn Leu Ala Lys Leu Lys Leu Phe Arg
1 5 10 15

<210> 128

<211> 13

<212> PRT

<213> Homo sapiens

<400> 128

Ile Arg Glu Lys Asn Pro Asp Gly Phe Leu Ser Ala Ala
1 5 10

<210> 129

<211> 9

<212> PRT

<213> Homo sapiens

<400> 129

Met Met Phe Gly Gly Tyr Glu Thr Ile
1 5

305500-1-1000000

<210> 130
 <211> 24
 <212> PRT
 <213> Homo sapiens

<400> 130
 Tyr Arg Asp Glu Ser Ser Ser Glu Leu Ser Val Asp Ser Glu Val Glu
 1 5 10 15

Phe Gln Leu Tyr Ser Gln Ile His
 20

<210> 131
 <211> 136
 <212> PRT
 <213> Homo sapiens

<400> 131
 Tyr Ala Gln Asp Leu Asp Asp Val Ile Arg Glu Glu Glu His Glu Glu
 1 5 10 15

Lys Asn Ser Gly Asn Ser Glu Ser Ser Ser Ser Lys Pro Asn Gln Lys
 20 25 30

Lys Leu Ile Val Leu Ser Asp Ser Glu Val Ile Gln Leu Ser Asp Gly
 35 40 45

Ser Glu Val Ile Thr Leu Ser Asp Glu Asp Ser Ile Tyr Arg Cys Lys
 50 55 60

Gly Lys Asn Val Arg Val Gln Ala Gln Glu Asn Ala His Gly Leu Ser
 65 70 75 80

Ser Ser Leu Gln Ser Asn Glu Leu Val Asp Lys Lys Cys Lys Ser Asp
 85 90 95

Ile Glu Lys Pro Lys Ser Glu Glu Arg Ser Gly Val Ile Arg Glu Val
 100 105 110

Met Ile Ile Glu Val Ser Ser Ser Glu Glu Glu Glu Ser Thr Ile Ser
 115 120 125

Glu Gly Asp Asn Val Glu Ser Trp
 130 135

<210> 132
 <211> 37
 <212> PRT
 <213> Homo sapiens

<400> 132
 Met Leu Leu Gly Cys Glu Val Asp Asp Lys Asp Asp Asp Ile Leu Leu
 1 5 10 15

10055531.005555

Ser Cys Leu Phe Arg His Ser Trp Asp Lys Gln Cys Asp Arg Cys His
35 40 45

Met Leu Gly His Tyr Thr Asp Ala Cys Thr Glu Ile Trp Arg Gln Tyr
50 55 60

His Leu Thr Thr Lys Pro Gly Pro Pro Lys Lys Pro Lys Thr Pro Ser
65 70 75 80

Arg Pro Ser Ala Leu Ala Tyr Cys Tyr His Cys Ala Gln Lys Gly His
85 90 95

Tyr Gly His Glu Cys Pro Glu Arg Glu Val Tyr Asp Pro Ser Pro Val
100 105 110

Ser Pro Phe Ile Cys Tyr Tyr Xaa Asp Lys Tyr Glu Ile Gln Glu Arg
115 120 125

Glu Lys Arg Leu Lys Gln Lys Ile Lys Val Xaa Lys Lys Asn Gly Val
130 135 140

Ile Pro Glu Pro Ser Lys Leu Pro Tyr Ile Lys Ala Ala Asn Glu Asn
145 150 155 160

Pro His His Asp Ile Arg Lys Gly Arg Ala Ser Trp Lys Ser Asn Arg
165 170 175

Trp Pro Gln

<210> 136

<211> 416

<212> PRT

<213> Homo sapiens

<400> 136

Met Ser Phe Pro Pro His Leu Asn Arg Pro Pro Met Gly Ile Pro Ala
1 5 10 15

Leu Pro Pro Gly Ile Pro Pro Pro Gln Phe Pro Gly Phe Pro Pro Pro
20 25 30

Val Pro Pro Gly Thr Pro Met Ile Pro Val Pro Met Ser Ile Met Ala
35 40 45

Pro Ala Pro Thr Val Leu Val Pro Thr Val Ser Met Val Gly Lys His
50 55 60

Leu Gly Ala Arg Lys Asp His Pro Gly Leu Lys Ala Lys Glu Asn Asp
65 70 75 80

Glu Asn Cys Gly Pro Thr Thr Thr Val Phe Val Gly Asn Ile Ser Glu
85 90 95

Lys Ala Ser Asp Met Leu Ile Arg Gln Leu Leu Ala Lys Cys Gly Leu
100 105 110

Val Leu Ser Trp Lys Arg Val Gln Gly Ala Ser Gly Lys Leu Gln Ala
115 120 125

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Phe	Gly	Phe	Cys	Glu	Tyr	Lys	Glu	Pro	Glu	Ser	Thr	Leu	Arg	Ala	Leu
130						135						140			
Arg	Leu	Leu	His	Asp	Leu	Gln	Ile	Gly	Glu	Lys	Lys	Leu	Leu	Val	Lys
145					150					155					160
Val	Asp	Ala	Lys	Thr	Lys	Ala	Gln	Leu	Asp	Glu	Trp	Lys	Ala	Lys	Lys
				165					170					175	
Lys	Ala	Ser	Asn	Gly	Asn	Ala	Arg	Pro	Glu	Thr	Val	Thr	Asn	Asp	Asp
			180					185					190		
Glu	Glu	Ala	Leu	Asp	Glu	Glu	Thr	Lys	Arg	Arg	Asp	Gln	Met	Ile	Lys
		195					200					205			
Gly	Ala	Ile	Glu	Val	Leu	Ile	Arg	Glu	Tyr	Ser	Ser	Glu	Leu	Asn	Ala
	210					215						220			
Pro	Ser	Gln	Glu	Ser	Asp	Ser	His	Pro	Arg	Lys	Lys	Lys	Lys	Glu	Lys
225					230					235					240
Lys	Glu	Asp	Ile	Phe	Arg	Arg	Phe	Pro	Val	Ala	Pro	Leu	Ile	Pro	Tyr
				245					250					255	
Pro	Leu	Ile	Thr	Lys	Glu	Asp	Ile	Asn	Ala	Ile	Glu	Met	Glu	Glu	Asp
			260					265					270		
Lys	Arg	Asp	Leu	Ile	Ser	Arg	Glu	Ile	Ser	Lys	Phe	Arg	Asp	Thr	His
	275						280					285			
Lys	Lys	Leu	Glu	Glu	Glu	Lys	Gly	Lys	Lys	Glu	Lys	Glu	Arg	Gln	Glu
	290					295					300				
Ile	Glu	Lys	Glu	Arg	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg
305					310					315					320
Glu	Arg	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu
				325					330					335	
Lys	Glu	Lys	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Asp	Arg	Asp	Arg	Asp
			340					345					350		
Arg	Thr	Lys	Glu	Arg	Asp	Arg	Asp	Arg	Asp	Arg	Glu	Arg	Asp	Arg	Asp
	355						360					365			
Arg	Asp	Arg	Glu	Arg	Ser	Ser	Asp	Arg	Asn	Lys	Asp	Arg	Ile	Arg	Ser
	370					375					380				
Arg	Glu	Lys	Ser	Arg	Asp	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu
385					390					395					400
Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu	Arg	Glu
				405					410					415	

<210> 137
 <211> 43
 <212> PRT
 <213> Homo sapiens

<400> 137
 Met Ser Phe Pro Pro His Leu Asn Arg Pro Pro Met Gly Ile Pro Ala
 1 5 10 15
 Leu Pro Pro Gly Ile Pro Pro Pro Gln Phe Pro Gly Phe Pro Pro Pro
 20 25 30
 Val Pro Pro Gly Thr Pro Met Ile Pro Val Pro
 35 40

<210> 138
 <211> 35
 <212> PRT
 <213> Homo sapiens

<400> 138
 Met Ser Ile Met Ala Pro Ala Pro Thr Val Leu Val Pro Thr Val Ser
 1 5 10 15
 Met Val Gly Lys His Leu Gly Ala Arg Lys Asp His Pro Gly Leu Lys
 20 25 30
 Ala Lys Glu
 35

<210> 139
 <211> 41
 <212> PRT
 <213> Homo sapiens

<400> 139
 Asn Asp Glu Asn Cys Gly Pro Thr Thr Thr Val Phe Val Gly Asn Ile
 1 5 10 15
 Ser Glu Lys Ala Ser Asp Met Leu Ile Arg Gln Leu Leu Ala Lys Cys
 20 25 30
 Gly Leu Val Leu Ser Trp Lys Arg Val
 35 40

<210> 140
 <211> 40
 <212> PRT
 <213> Homo sapiens

<400> 140
 Gln Gly Ala Ser Gly Lys Leu Gln Ala Phe Gly Phe Cys Glu Tyr Lys
 1 5 10 15
 Glu Pro Glu Ser Thr Leu Arg Ala Leu Arg Leu Leu His Asp Leu Gln

20

25

30

Ile Gly Glu Lys Lys Leu Leu Val
35 40

<210> 141
<211> 39
<212> PRT
<213> Homo sapiens

<400> 141
Lys Val Asp Ala Lys Thr Lys Ala Gln Leu Asp Glu Trp Lys Ala Lys
1 5 10 15

Lys Lys Ala Ser Asn Gly Asn Ala Arg Pro Glu Thr Val Thr Asn Asp
20 25 30

Asp Glu Glu Ala Leu Asp Glu
35

<210> 142
<211> 40
<212> PRT
<213> Homo sapiens

<400> 142
Glu Thr Lys Arg Arg Asp Gln Met Ile Lys Gly Ala Ile Glu Val Leu
1 5 10 15

Ile Arg Glu Tyr Ser Ser Glu Leu Asn Ala Pro Ser Gln Glu Ser Asp
20 25 30

Ser His Pro Arg Lys Lys Lys Lys
35 40

<210> 143
<211> 44
<212> PRT
<213> Homo sapiens

<400> 143
Glu Lys Lys Glu Asp Ile Phe Arg Arg Phe Pro Val Ala Pro Leu Ile
1 5 10 15

Pro Tyr Pro Leu Ile Thr Lys Glu Asp Ile Asn Ala Ile Glu Met Glu
20 25 30

Glu Asp Lys Arg Asp Leu Ile Ser Arg Glu Ile Ser
35 40

<210> 144
<211> 41
<212> PRT
<213> Homo sapiens

<400> 144

Lys Phe Arg Asp Thr His Lys Lys Leu Glu Glu Lys Gly Lys Lys
 1 5 10 15

Glu Lys Glu Arg Gln Glu Ile Glu Lys Glu Arg Arg Glu Arg Glu Arg
 20 25 30

Glu Arg Glu Arg Glu Arg Glu Arg Arg
 35 40

<210> 145

<211> 93

<212> PRT

<213> Homo sapiens

<400> 145

Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu Lys Glu Lys
 1 5 10 15

Glu Arg Glu Arg Glu Arg Glu Arg Asp Arg Asp Arg Asp Arg Thr Lys
 20 25 30

Glu Arg Asp Arg Asp Arg Asp Arg Glu Arg Asp Arg Asp Arg Asp Arg
 35 40 45

Glu Arg Ser Ser Asp Arg Asn Lys Asp Arg Ile Arg Ser Arg Glu Lys
 50 55 60

Ser Arg Asp Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg
 65 70 75 80

Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu
 85 90

<210> 146

<211> 52

<212> PRT

<213> Homo sapiens

<400> 146

Arg Asp Arg Asp Arg Asp Arg Glu Arg Ser Ser Asp Arg Asn Lys Asp
 1 5 10 15

Arg Ile Arg Ser Arg Glu Lys Ser Arg Asp Arg Glu Arg Glu Arg Glu
 20 25 30

Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu
 35 40 45

Arg Glu Arg Glu
 50

<210> 147

<211> 22

<400> 147
Lys Pro Gln Met Glu Gly Arg Leu Val Gly Gly Gly Gly Ser Phe Ser
1 5 10 15

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<210> 148
<211> 25
<212> PRT
<213> Homo sapiens
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<400> 148
Leu Leu Val Pro Ser Pro Ser Leu Leu Pro Ala Val Ser Ser Tyr His
1 5 10 15

Leu Pro Leu Gly Arg Gly Leu Ile Arg
20 25

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<210> 149
<211> 23
<212> PRT
<213> Homo sapiens
```

<400> 149
Glu Gln Gly Ser Ala Val Arg Ser Pro Ala Phe Pro Val Arg Gln Ala
1 5 10 15

Trp Leu Pro Cys Ser Gly Ser
20

<210> 150
<211> 151
<212> PRT
<213> Homo sapiens

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<220>  
<221> SITE  
<222> (123)  
<223> Xaa equals any of the naturally occurring L-amino acids
```

<400> 150
Met Gly Leu Asn Pro Pro Gly Leu Thr Ser Ala Leu Lys Pro Gln Met
1 5 10 15
Ser Arg Gly Arg

1
Glu Gly Arg Leu Val Gly Gly Gly Gly Ser Phe Ser Ser Arg Gly Arg
20 25 30

20
His Pro Ala Gly Trp Val Leu Pro Gln Pro Cys Leu Leu Leu Ser Pro
35 40 45
Pro Ser

35
Thr Leu Ser Phe Pro Pro Ala Cys Gly Leu Leu Val Pro Ser Pro Ser

50 55 60
 Leu Leu Pro Ala Val Ser Ser Tyr His Leu Pro Leu Gly Arg Gly Leu
 65 70 75 80
 Ile Arg Pro Ala Phe Lys Ile Lys Val Cys Ser Lys Leu Thr Val Trp
 85 90 95
 Cys Ser Leu Pro Ser Pro Ser Arg Trp Arg Cys Cys His Gly Asn Ala
 100 105 110
 Val Ala Leu Pro Ala Leu Gly Pro Trp Arg Xaa Trp Glu Gln Gly Ser
 115 120 125
 Ala Val Arg Ser Pro Ala Phe Pro Val Arg Gln Ala Trp Leu Pro Cys
 130 135 140
 Ser Gly Ser Leu Thr Ser Trp
 145 150

<210> 151
 <211> 64
 <212> PRT
 <213> Homo sapiens

<400> 151
 Asn Val Thr Lys Ile Thr Leu Glu Ser Phe Leu Ala Trp Lys Lys Arg
 1 5 10 15
 Lys Arg Gln Glu Lys Ile Asp Lys Leu Glu Gln Asp Met Glu Arg Arg
 20 25 30
 Lys Ala Asp Phe Lys Ala Gly Lys Ala Leu Val Ile Ser Gly Arg Glu
 35 40 45
 Val Phe Glu Phe Arg Pro Glu Leu Val Asn Asp Asp Asp Glu Glu Ala
 50 55 60

<210> 152
 <211> 22
 <212> PRT
 <213> Homo sapiens

<400> 152
 Glu Arg Arg Lys Ala Asp Phe Lys Ala Gly Lys Ala Leu Val Ile Ser
 1 5 10 15
 Gly Arg Glu Val Phe Glu
 20

<210> 153
 <211> 89

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (81)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 153

Met Cys Asp Glu Leu Pro Gly Glu Gly Arg Trp Glu Pro Gly Gln Asp
1 5 10 15

Arg Lys Leu Cys Leu Ser Phe Pro Leu Gly Thr Pro Ala Arg Pro Ile
20 25 30

Lys Ser Val Cys Pro Thr Leu Leu Ser Leu Val Phe Leu Ser Arg Gly
35 40 45

Met Glu Gln Arg Val Arg Glu Ala Val Ala Val Ser Thr Ser Ala Pro
50 55 60

Ala Pro Ser Ala Ser Glu Pro Phe Leu Ser Trp Gly Met Gly Leu Ala
65 70 75 80

Xaa Phe Ser Phe Pro Phe Leu Tyr Leu
85

<210> 154

<211> 95

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (71)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 154

Gly Ala Ser Leu Gly Ser Ser Ser Ser Cys Pro Ser His Ser Trp Trp
1 5 10 15

Gly Gln Arg Ser Val Cys Arg Glu Thr Ala Ser Pro Leu Pro Arg Trp
20 25 30

Met Leu Tyr Leu Asp Gly Leu Ala Thr Ser His Phe Leu His His Pro
35 40 45

Glu Pro His Leu Leu Pro Ser Pro Gly Val Phe Thr Arg Leu Cys Cys
50 55 60

His Leu Cys Pro Gly His Xaa Ser Leu Ser Gly Cys Val Met Asn Ser
65 70 75 80

Gln Glu Arg Glu Asp Gly Ser Gln Gly Lys Ile Gly Ser Ser Ala
85 90 95

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<210> 155
 <211> 125
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (30)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (115)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 155
 Thr Ser Val Leu Ser Ser Ser Ser Val Tyr Cys Met Gln Ala Arg Lys
 1 5 10 15

Leu Ser Val Ser Gln Arg Tyr Arg Lys Gly Lys Glu Lys Xaa Ala Arg
 20 25 30

Pro Ile Pro Gln Glu Arg Lys Gly Ser Asp Ala Glu Gly Ala Gly Ala
 35 40 45

Glu Val Glu Thr Ala Thr Ala Ser Leu Thr Leu Cys Ser Ile Pro Leu
 50 55 60

Leu Lys Lys Thr Arg Leu Ser Arg Val Gly Gln Thr Leu Phe Ile Gly
 65 70 75 80

Leu Ala Gly Val Pro Ser Gly Lys Leu Arg Gln Ser Phe Leu Ser Cys
 85 90 95

Pro Gly Ser His Leu Pro Ser Pro Gly Ser Ser Ser His Ile Pro Arg
 100 105 110

Gly Lys Xaa Val Leu Gly Arg Gly Gly Ser Lys Ala Gly
 115 120 125

<210> 156
 <211> 125
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (13)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (97)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 156
 Ala Leu Val Lys Gly Thr Gly Arg Glu Lys Arg Arg Xaa Gln Gly Pro

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1	5	10	15												
Ser	Pro	Lys	Lys	Gly	Arg	Ala	Leu	Met	Gln	Arg	Glu	Gln	Glu	Leu	Arg
		20						25					30		
Trp	Arg	Arg	Pro	Leu	Pro	Leu	Ser	Pro	Ser	Val	Pro	Ser	Leu	Cys	Ser
		35					40					45			
Arg	Lys	Pro	Gly	Leu	Ala	Glu	Trp	Asp	Arg	Arg	Phe	Leu	Leu	Val	Trp
		50				55					60				
Leu	Ala	Cys	Leu	Val	Glu	Ser	Ser	Gly	Arg	Ala	Ser	Tyr	Leu	Ala	Leu
		65			70				75						80
Ala	Pro	Ile	Phe	Pro	Leu	Leu	Gly	Val	His	His	Thr	Ser	Arg	Glu	Gly
				85					90					95	
Xaa	Val	Ser	Trp	Ala	Glu	Val	Ala	Ala	Lys	Pro	Gly	Lys	Asn	Ser	Arg
			100					105					110		
Ala	Gly	Lys	Gln	Met	Gly	Leu	Arg	Val	Met	Gln	Lys	Met			
		115					120					125			

<210> 157

<211> 32

<212> PRT

<213> Homo sapiens

<400> 157

Ser	Phe	Pro	Leu	Gly	Thr	Pro	Ala	Arg	Pro	Ile	Lys	Ser	Val	Cys	Pro
1				5					10					15	

Thr	Leu	Leu	Ser	Leu	Val	Phe	Leu	Ser	Arg	Gly	Met	Glu	Gln	Arg	Val
		20						25					30		

<210> 158

<211> 31

<212> PRT

<213> Homo sapiens

<400> 158

Thr	Ala	Ser	Pro	Leu	Pro	Arg	Trp	Met	Leu	Tyr	Leu	Asp	Gly	Leu	Ala
1				5					10					15	

Thr	Ser	His	Phe	Leu	His	His	Pro	Glu	Pro	His	Leu	Leu	Pro	Ser	
		20						25					30		

<210> 159

<211> 31

<212> PRT

<213> Homo sapiens

70

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<400> 163
Ala His Ser Phe Thr Thr Pro Glu Glu Ala Arg Gly Ala Gly Ser Met
 1              5              10              15
Gly Cys Arg Phe Pro Phe Lys His Thr His Ser Pro His Pro Arg Arg
 20              25              30
Pro Glu Val Gln Gly Ala Trp Ala Gly Cys Thr Ser Ala Gly Glu Lys
 35              40              45
Ala Glu Pro Pro Pro Ser Arg Glu Pro Gly Ser Gln Ala Ser Arg Phe
 50              55              60
Pro Leu Pro Pro
 65

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<400> 164
Gly Trp Gln Asp Thr Ser Cys Arg Asp Thr Ser Cys Ala Ala Leu Arg
1 5 10 15
Gly Gly Leu Gln Thr Leu Phe Pro Ala
20 25

```

<400> 165
Gly Cys Arg Phe Pro Phe Lys His Thr His Ser Pro His Pro Arg Arg
 1             5             10             15
Pro Glu Val Gln Gly Ala Trp Ala
      20

```

<400> 156
Pro His Gln Val Glu Gly Arg Leu Gly Thr Met Glu Thr Trp Asp Ser

```

<400> 167
Leu Val Thr Pro Pro Ser Gly Gly Glu Thr Gly Asp His Gly Asn Met
 1             5             10             15

Gly Gln Leu Pro Arg Arg Ala Leu Ala Leu Gln Asn Ser Thr Gln Gly
      20             25             30

Ile Leu Gly Pro Gly Ala Glu Leu Pro Val Ser Val Glu Lys Asp Lys
      35             40             45

Val His Gly Asp Pro Ala Ser Asn Ile Arg Met Ala Met Pro Gly Thr
      50             55             60

Arg Phe Pro Leu Cys Ser Cys Arg Ile Pro Cys Gln Pro Gly Gly Ile
 65             70             75             80

His

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<400> 168
Glu Gly Leu Leu His Cys Arg Ile Pro Leu Lys Gly Ser Trp Val Gln
 1             5             10             15
Glu Pro Ser Cys Gln Tyr Gln Trp Arg Arg Thr Arg Cys Met Gly Ile
      20             25             30

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<210> 169
 <211> 29
 <212> PRT
 <213> Homo sapiens

<400> 169
 Gln Asn Ser Thr Gln Gly Ile Leu Gly Pro Gly Ala Glu Leu Pro Val
 1 5 10 15
 Ser Val Glu Lys Asp Lys Val His Gly Asp Pro Ala Ser
 20 25

<210> 170
 <211> 42
 <212> PRT
 <213> Homo sapiens

<400> 170
 Phe Gly Thr Arg Lys Lys Tyr His Leu Cys Met Ile Pro Asn Leu Asp
 1 5 10 15
 Leu Asn Leu Asp Arg Asp Leu Val Leu Pro Asp Val Ser Tyr Gln Val
 20 25 30
 Glu Ser Ser Glu Glu Asp Gln Ser Gln Thr
 35 40

<210> 171
 <211> 115
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (88)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 171
 Phe Leu Leu Ser Leu Gly Ser Leu Val Met Leu Leu Gln Asp Leu Val
 1 5 10 15
 His Ser Glu Leu Asp Gly Thr Leu His Tyr Thr Val Ala Leu His Lys
 20 25 30
 Asp Gly Ile Glu Met Ser Cys Glu Gln Ser Ile Asp Ser Pro Asp Phe
 35 40 45
 His Leu Leu Asp Trp Lys Cys Thr Val Glu Ile His Lys Glu Lys Lys
 50 55 60
 Gln Gln Ser Leu Ser Leu Arg Ile His Ser Leu Arg Leu Ile Leu Leu
 65 70 75 80
 Thr Gly Phe His Leu Ile Thr Xaa Ile Trp Lys His Gln Ile Ser Ile
 85 90 95

Leu Lys Cys Val Gly Gly Thr Ala Gly Cys Asp Ser Tyr Thr Pro Lys

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<210> 175
<211> 24
<212> PRT
<213> Homo sapiens
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<400> 175

Ala Cys Ser Ser Ala Cys Ile Cys Phe Cys Asp Arg Gly Pro Cys Leu
 1 5 10 15

Gly Trp Asn Asp Pro Asp Arg Met
 20

<210> 176

<211> 26

<212> PRT

<213> Homo sapiens

<400> 176

Thr Ala Gly Cys Asp Ser Tyr Thr Pro Lys Val Ile Gln Cys Gln Asn
 1 5 10 15

Lys Gly Trp Asp Gly Tyr Asp Val Gln Trp
 20 25

<210> 177

<211> 32

<212> PRT

<213> Homo sapiens

<400> 177

Glu Tyr Asn Leu Asp Tyr Thr Glu Leu Gly Leu Gln Lys Leu Lys Glu
 1 5 10 15

Ser Gly Lys Gln His Gly Phe Ala Ser Phe Ser Asp Tyr Tyr Tyr Lys
 20 25 30

<210> 178

<211> 28

<212> PRT

<213> Homo sapiens

<400> 178

Tyr Lys Leu Phe Leu Ser Asp Gly Gln Tyr Ser Pro Pro Pro Tyr Ser
 1 5 10 15

Glu Tyr Pro Pro Phe Ser His Arg Tyr Gln Arg Phe
 20 25

<210> 179

<211> 26

<212> PRT

<213> Homo sapiens

<400> 179

Glu Asn Ser Gly Pro Gly Phe Trp Thr Gly Leu Gly Thr Gly Gly Ile

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1           5           10           15
Leu Gly Tyr Leu Phe Gly Ser Asn Arg Ala
      20                25

<210> 180
<211> 25
<212> PRT
<213> Homo sapiens

<400> 180
Asn Arg Ala Tyr Ser Pro Leu His Gly Gly Ser Gly Ser Tyr Ser Val
  1           5                10                15

Cys Ser Asn Ser Asp Thr Lys Thr Arg
      20                25

<210> 181
<211> 124
<212> PRT
<213> Homo sapiens

<220>
<221> SITE
<222> (30)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (31)
<223> Xaa equals any of the naturally occurring L-amino acids

<220>
<221> SITE
<222> (32)
<223> Xaa equals any of the naturally occurring L-amino acids

<400> 181
Thr Glu Ser Gln Met Lys Cys Phe Leu Gly Asn Ser His Asp Thr Ala
  1           5                10                15

Pro Arg His Thr Cys Ser Gly Gln Gly Leu His Gly Gly Xaa Xaa Xaa
      20                25                30

Thr Ala Pro Leu Arg Ala Leu Gln Gln His Ser Gln Asp Gly Lys Leu
      35                40                45

Cys Thr Asn Ser Leu Pro Ala Ala Arg Gly Gly Pro His Lys His Val
      50                55                60

Val Val Thr Val Val Tyr Ser Val Lys His Trp Lys Pro Thr Glu Arg
      65                70                75                80

Ser Ser Val Ser Ile Lys Lys Glu Glu Glu Thr Asp Trp Asp Met Asp
      85                90                95

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Thr Asn Ser Leu Pro Ala Ala Arg Gly Gly Pro His Lys His
20 25 30

<213> Homo sapiens

Asp Gln Leu Ser Lys Gln Arg Thr Thr Tyr Glu
20 25

<213> Homo sapiens

Pro Leu Pro Val Gly Ala Pro Thr Asn Thr Leu Ser Ser
20 25

<213> Homo sapiens

Leu

<213> Homo sapiens

Arg Cys Val Ser Ile Tyr Leu Ile Asn Leu Leu Thr Ala Asp Phe Leu

30

Pro Trp Lys Leu Lys Ile Phe His Cys Gln Val Thr Ala Cys Leu Ile
50 55 60

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<210> 188
<211> 31
<212> PRT
<213> Homo sapiens
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<400> 188
Lys Asn Thr Asn His Arg Cys Val Ser Ile Tyr Leu Ile Asn Leu Leu
1 5 10 15

Thr Ala Asp Phe Leu Leu Thr Leu Ala Leu Pro Val Lys Ile Val
20 25 30

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<210> 189
<211> 17
<212> PRT
<213> Homo sapiens
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<400> 189
Lys His Thr Val Glu Thr Arg Ser Val Ala Phe Arg Lys Gln Leu Asn
1 5 10 15

Arg

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<210> 190
<211> 30
<212> PRT
<213> Homo sapiens
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<220>
<221> SITE
<222> (18)
<223> Xaa equals any of the naturally occurring L-amino acids
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<220>  
<221> SITE  
<222> (29)  
<223> Xaa equals any of the naturally occurring L-amino acids
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<400> 190
Pro Gln Val Leu His Leu Arg Trp Leu Pro Lys Val Leu Gly Tyr Arg
1 5 10 15

Ser Xaa Pro Leu Arg Leu Ala Asp Pro Ser Thr Phe Xaa Met

20

25

30

<210> 191
 <211> 131
 <212> PRT
 <213> Homo sapiens

<400> 191
 Gln Leu Leu Gly Phe Glu Gly Asn Asp Ser Ala Gly Glu Arg Arg Trp
 1 5 10 15
 Arg Gly Ala Asn Met Gln Ile Pro Leu Leu Gln Val Ala Leu Pro Leu
 20 25 30
 Ser Thr Glu Glu Gly Thr Gly Pro Ser Gly Pro Thr Gln Pro Ser Pro
 35 40 45
 Gln Gly Glu Val Arg Phe Leu Arg Ser Pro Arg Met Gly Gly Gln Val
 50 55 60
 Pro His Trp Glu Trp Arg Ser His Ser Leu Pro Trp Val Leu Thr Ser
 65 70 75 80
 Thr Leu Ser Gly Cys Glu Gly Asp Leu Pro Gly Phe Pro His Gln Val
 85 90 95
 Gln Leu Pro Ala Ala Glu Ser His Thr Leu Asn Thr Gly Leu Leu Arg
 100 105 110
 Ser Asp Thr Gly Gln Phe Thr Pro Cys Leu Lys Leu Ala Phe Glu Arg
 115 120 125
 Pro Ser Gly
 130

<210> 192
 <211> 24
 <212> PRT
 <213> Homo sapiens

<400> 192
 Asn Asp Ser Ala Gly Glu Arg Arg Trp Arg Gly Ala Asn Met Gln Ile
 1 5 10 15
 Pro Leu Leu Gln Val Ala Leu Pro
 20

<210> 193
 <211> 29
 <212> PRT
 <213> Homo sapiens

<400> 193
 Pro Ser Pro Gln Gly Glu Val Arg Phe Leu Arg Ser Pro Arg Met Gly
 1 5 10 15

Met Gln Asn Lys Pro Arg Ala Pro Gln Lys Arg Ala Leu Pro Phe Pro
 1 5 10 15

Glu Leu Glu Leu Arg Asp Tyr Ala Ser Val Leu Thr Arg Tyr Ser Leu
 20 25 30

Gly Leu Arg Asn Lys Glu Pro Ser Leu Gly His Arg Trp Gly Thr Gln
 35 40 45

Lys Leu Gly Arg Ser Pro Cys Ser Glu Gly Ser Gln Gly His Thr Thr
 50 55 60

Asp Ala Ala Asp Val Gln Asn His Ser Lys Glu Glu Gln Arg Asp Ala
 65 70 75 80

Gly Ala Gln Arg Xaa Cys Gly Gln Gly Arg His Thr Trp Ala Tyr Arg
 85 90 95

Xaa Gly Ala Gln Asp Thr Ser Arg Leu Thr Gly Asp Pro Arg Gly Gly
 100 105 110

Glu Arg Ser Pro Pro Lys Cys Gln Ser Met Lys Gln Gln Glu Gly Ala
 115 120 125

Pro Ser Gly His Cys Trp Asp Gln Trp Cys His Gly Ala Ser Glu Val
 130 135 140

Val Trp Pro Glu Ser Arg Lys Arg Ala Gln Ile Phe Xaa Ser Pro Cys
 145 150 155 160

Arg Gln Ser Pro Arg Ser Ser Ala Leu Gly Ala Gly Gln Lys Leu Ala
 165 170 175

Val Cys Ser Pro Asp Ile Leu Cys Cys Pro Thr Asp Thr Leu Leu Ala
 180 185 190

Ser His Pro His Ser Leu Leu Thr Gly Thr Gln Phe Ser Gly Gln Thr
 195 200 205

Gln Ala Leu Ala Pro Ser Trp Cys Ala
 210 215

<210> 197

<211> 26

<212> PRT

<213> Homo sapiens

<400> 197

Ala Pro Gln Lys Arg Ala Leu Pro Phe Pro Glu Leu Glu Leu Arg Asp
 1 5 10 15

Tyr Ala Ser Val Leu Thr Arg Tyr Ser Leu
 20 25

<210> 198

<211> 27

<212> PRT
 <213> Homo sapiens

<400> 198
 Ala Pro Gln Lys Arg Ala Leu Pro Phe Pro Glu Leu Glu Leu Arg Asp
 1 5 10 15

Tyr Ala Ser Val Leu Thr Arg Tyr Ser Leu Gly
 20 25

<210> 199
 <211> 29
 <212> PRT
 <213> Homo sapiens

<400> 199
 Leu Gly Arg Ser Pro Cys Ser Glu Gly Ser Gln Gly His Thr Thr Asp
 1 5 10 15

Ala Ala Asp Val Gln Asn His Ser Lys Glu Glu Gln Arg
 20 25

<210> 200
 <211> 25
 <212> PRT
 <213> Homo sapiens

<400> 200
 Thr Asp Thr Leu Leu Ala Ser His Pro His Ser Leu Leu Thr Gly Thr
 1 5 10 15

Gln Phe Ser Gly Gln Thr Gln Ala Leu
 20 25

<210> 201
 <211> 77
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (13)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (18)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (39)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 201

1556371-0650

Ile Ala Gln Val Leu Lys Ala Glu Met Cys Leu Val Xaa Arg Pro His
1 5 10 15

Pro Xaa Leu Leu Asp Ser His Arg Gly Trp Ala Gly Glu Thr Leu Arg
20 25 30

Gly Gln Gly Arg Gln Glu Xaa Glu Ser Asp Thr Lys Ala Gly Thr Leu
35 40 45

Gln Leu Gln Arg Gln Ala Pro Leu Pro Leu Thr Gln His Ser Leu Val
50 55 60

Leu Pro Ile Ser Pro Gly Pro Ser Asn His Thr Gln Ser
65 70 75

<210> 202

<211> 20

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (16)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 202

Arg Gly Trp Ala Gly Glu Thr Leu Arg Gly Gln Gly Arg Gln Glu Xaa
1 5 10 15

Glu Ser Asp Thr
20

<210> 203

<211> 20

<212> PRT

<213> Homo sapiens

<400> 203

Ala Pro Leu Pro Leu Thr Gln His Ser Leu Val Leu Pro Ile Ser Pro
1 5 10 15

Gly Pro Ser Asn
20

<210> 204

<211> 166

<212> PRT

<213> Homo sapiens

<400> 204

Asn Arg Glu Arg Gly Gly Ala Gly Ala Thr Phe Glu Cys Asn Ile Cys
1 5 10 15

Leu Glu Thr Ala Arg Glu Ala Val Val Ser Val Cys Gly His Leu Tyr
20 25 30

205070-1-23000

Gly Ala Phe Pro Phe Gly Phe Phe Thr Thr Val Phe Asn Ala His Glu
115 120 125

<213> Homo sapiens

Ala Phe Pro Phe Gly Phe Phe Thr Thr Val Phe Asn Ala His Glu Pro
1 5 10 15

Phe Arg Arg Gly Thr Gly Val Asp Leu Gly Gln Gly His Pro Ala Ser
20 25 30

Ser Trp Gln Asp
35

<211> 15

<213> Homo sapiens

Gly Leu Ser Thr Gly Pro Asp Met Ala Ser Leu Asp Leu Phe Val
1 5 10 15

<211> 97

<213> Homo sapiens

Gly Arg Pro Thr Arg Pro Ser Gln Ala Thr Arg His Phe Leu Leu Gly
1 5 10 15

Thr Leu Phe Thr Asn Cys Leu Cys Gly Thr Phe Cys Phe Pro Cys Leu
20 25 30

Gly Cys Gln Val Ala Ala Asp Met Asn Glu Cys Cys Leu Cys Gly Thr
35 40 45

Ser Val Ala Met Arg Thr Leu Tyr Arg Thr Arg Tyr Gly Ile Pro Gly
50 55 60

Ser Ile Cys Asp Asp Tyr Met Ala Thr Leu Cys Cys Pro His Cys Thr
65 70 75 80

Leu Cys Gln Ile Lys Arg Asp Ile Asn Arg Arg Arg Ala Met Arg Thr
85 90 95

Phe

<211> 146

<213> Homo sapiens

<400> 212

Ile Lys Asn Leu Ile Phe Phe Met Pro Ser Val Val Leu Lys His Ile
1 5 10 15

His His Ile Ser Val Ala Lys Asp Gly Glu Glu Leu Lys Leu Lys Arg
20 25 30

Cys Leu Leu Asn Phe Val Ala Ser Val Arg Ala Phe His His Gln Phe
35 40 45

Leu Glu Ser Thr His Gly Ser Pro Ser Val Asp Ile Ser Leu Asp Leu
50 55 60

Ala Lys Ser Thr Met Arg Thr Ala Lys Ser Cys His Ile Val Ile Thr
65 70 75 80

Asn Arg Ser Arg Asp Ala Ile Ser Gly Pro Val Glu Ser Pro His Cys
85 90 95

Asp Ala Cys Ser Thr Gln Thr Ala Phe Ile His Ile Ser Cys Asn Leu
100 105 110

Thr Pro Lys Ala Arg Glu Thr Lys Cys Ala Thr Glu Thr Ile Ser Lys
115 120 125

Gln Gly Ser Glu Gln Glu Met Ser Cys Gly Leu Gly Arg Thr Arg Gly
130 135 140

Ser Thr
145

<210> 213

<211> 23

<212> PRT

<213> Homo sapiens

<400> 213

Phe Leu Leu Gly Thr Leu Phe Thr Asn Cys Leu Cys Gly Thr Phe Cys
1 5 10 15

Phe Pro Cys Leu Gly Cys Gln
20

<210> 214

<211> 24

<212> PRT

<213> Homo sapiens

<400> 214

Ser Ile Cys Asp Asp Tyr Met Ala Thr Leu Cys Cys Pro His Cys Thr
1 5 10 15

Leu Cys Gln Ile Lys Arg Asp Ile
20

<210> 215

<211> 30
 <212> PRT
 <213> Homo sapiens

<400> 215
 Ser Val Val Leu Lys His Ile His His Ile Ser Val Ala Lys Asp Gly
 1 5 10 15

Glu Glu Leu Lys Leu Lys Arg Cys Leu Leu Asn Phe Val Ala
 20 25 30

<210> 216
 <211> 26
 <212> PRT
 <213> Homo sapiens

<400> 216
 Asn Phe Val Ala Ser Val Arg Ala Phe His His Gln Phe Leu Glu Ser
 1 5 10 15

Thr His Gly Ser Pro Ser Val Asp Ile Ser
 20 25

<210> 217
 <211> 28
 <212> PRT
 <213> Homo sapiens

<400> 217
 Thr Ala Phe Ile His Ile Ser Cys Asn Leu Thr Pro Lys Ala Arg Glu
 1 5 10 15

Thr Lys Cys Ala Thr Glu Thr Ile Ser Lys Gln Gly
 20 25

<210> 218
 <211> 6
 <212> PRT
 <213> Homo sapiens

<400> 218
 Met Lys Gly Glu Ile Glu
 1 5

<210> 219
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 219
 Glu Phe Gly Thr Ser Arg Gly Arg Gln His Arg Ala Leu Glu
 1 5 10

205000-100000

<210> 220
 <211> 80
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (72)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 220
 His Gln Thr Pro Gly Val Thr Gly Leu Ser Ala Val Glu Met Asp Gln
 1 5 10 15
 Ile Thr Pro Ala Leu Trp Glu Ala Leu Ala Ile Asp Thr Leu Arg Lys
 20 25 30
 Leu Arg Ile Gly Thr Arg Arg Pro Arg Ile Arg Trp Gly Gln Glu Ala
 35 40 45
 His Val Pro Ala Gly Ala Ala Gln Glu Gly Pro Leu His Leu Leu Leu
 50 55 60
 Gln Arg Pro Ala Pro Trp Gly Xaa Ala Pro His Gly Lys Ala Cys Gly
 65 70 75 80

<210> 221
 <211> 87
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (39)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 221
 Gly Leu Gly Gln Gly Gly Gln Gly Leu Asp Gly Gly Arg Lys Leu Met
 1 5 10 15
 Tyr Leu Gln Glu Leu Pro Arg Arg Asp His Tyr Ile Phe Tyr Cys Lys
 20 25 30
 Asp Gln His His Gly Gly Xaa Leu His Met Gly Lys Leu Val Gly Arg
 35 40 45
 Asn Ser Asp Thr Asn Arg Glu Ala Leu Glu Glu Phe Lys Lys Leu Val
 50 55 60
 Gln Arg Lys Gly Leu Ser Glu Glu Asp Ile Phe Thr Pro Leu Gln Thr
 65 70 75 80
 Gly Ser Cys Val Pro Glu His
 85

105000-440500

<210> 222
 <211> 176
 <212> PRT
 <213> Homo sapiens

<220>
 <221> SITE
 <222> (62)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (84)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (143)
 <223> Xaa equals any of the naturally occurring L-amino acids

<220>
 <221> SITE
 <222> (152)
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 222
 Ser Gly Pro Ser Arg Leu Arg Thr Ser Leu Ser His Pro Val Ser Asp
 1 5 10 15
 Val Arg Ala Thr Ser Pro Pro Gly Arg Arg Gly Gln Pro Leu Leu Gly
 20 25 30
 Gly Gly Gln Ser Trp Gly Pro Gly Lys Arg Ala Ala Trp Ala Leu Ser
 35 40 45
 Thr Cys Gly Gly Trp Cys Thr Gly Val Gly Gly Gly Gly Xaa Trp Gly
 50 55 60
 Trp Glu Trp Gly Arg Gly Ser Gln Ala Leu Tyr Leu Pro Gly Ser Ser
 65 70 75 80
 Val Phe Arg Xaa Arg Ile Phe Phe Trp Met His Arg Ser Ser Leu Met
 85 90 95
 Lys Val Asn Val Ala Ser Asn Phe Pro Pro Pro Arg Ala Val Thr Phe
 100 105 110
 Thr Gly Asp Thr Phe Trp Ala Ser Cys Leu Arg Lys Val Leu Ser Thr
 115 120 125
 Thr Met Ala Phe Thr Tyr Gln Val Pro Val Ile Ser Ser Ser Xaa Arg
 130 135 140
 Val Lys Asp Arg Ala Ala Ala Xaa Pro Ser Val Thr Pro Arg Asn Arg
 145 150 155 160

145531.0550M

Val Phe Ile Ser Arg Ala Leu Cys Cys Arg Pro Arg Leu Val Pro Asn
 165 170 175

<210> 223

<211> 103

<212> PRT

<213> Homo sapiens

<220>

<221> SITE

<222> (74)

<223> Xaa equals any of the naturally occurring L-amino acids

<220>

<221> SITE

<222> (92)

<223> Xaa equals any of the naturally occurring L-amino acids

<400> 223

Gly Leu Pro Glu Gly Arg Arg Asp Leu Val His Leu Asp Cys Gly Gln
 1 5 10 15

Ala Cys His Thr Arg Cys Leu Met Ser Gly Pro Pro Ala Pro Gln Glu
 20 25 30

Gly Glu Ala Ser Pro Ser Leu Glu Val Gly Arg Ala Gly Ala Leu Ala
 35 40 45

Lys Gly Gln Pro Gly His Ser Leu Pro Val Glu Ala Gly Ala Leu Gly
 50 55 60

Leu Ala Val Gly Glu Gly Gly Gly Xaa Gly Gly Gly Ala His Arg
 65 70 75 80

Arg Cys Ile Cys Gln Ala Pro Pro Ser Ser Ala Xaa Gly Phe Ser Ser
 85 90 95

Gly Cys Thr Asp Pro Pro Ser
 100

<210> 224

<211> 30

<212> PRT

<213> Homo sapiens

<400> 224

Val Glu Met Asp Gln Ile Thr Pro Ala Leu Trp Glu Ala Leu Ala Ile
 1 5 10 15

Asp Thr Leu Arg Lys Leu Arg Ile Gly Thr Arg Arg Pro Arg
 20 25 30

<210> 225
 <211> 23
 <212> PRT
 <213> Homo sapiens

<400> 225
 Arg Lys Leu Met Tyr Leu Gln Glu Leu Pro Arg Arg Asp His Tyr Ile
 1 5 10 15

Phe Tyr Cys Lys Asp Gln His
 20

<210> 226
 <211> 23
 <212> PRT
 <213> Homo sapiens

<400> 226
 Glu Ala Leu Glu Glu Phe Lys Lys Leu Val Gln Arg Lys Gly Leu Ser
 1 5 10 15

Glu Glu Asp Ile Phe Thr Pro
 20

<210> 227
 <211> 27
 <212> PRT
 <213> Homo sapiens

<400> 227
 Arg Ala Thr Ser Pro Pro Gly Arg Arg Gly Gln Pro Leu Leu Gly Gly
 1 5 10 15

Gly Gln Ser Trp Gly Pro Gly Lys Arg Ala Ala
 20 25

<210> 228
 <211> 29
 <212> PRT
 <213> Homo sapiens

<400> 228
 Phe Phe Trp Met His Arg Ser Ser Leu Met Lys Val Asn Val Ala Ser
 1 5 10 15

Asn Phe Pro Pro Pro Arg Ala Val Thr Phe Thr Gly Asp
 20 25

<210> 229
 <211> 28
 <212> PRT
 <213> Homo sapiens

<400> 229

Cys Leu Met Ser Gly Pro Pro Ala Pro Gln Glu Gly Glu Ala Ser Pro
1 5 10 15

Ser Leu Glu Val Gly Arg Ala Gly Ala Leu Ala Lys
20 25

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